Madras University Archaeological Series

DECIPHERING THE INDUS SCRIPT...

[From Graffiti on Ancient Indian Pottery]

By

Dr. S. GURUMURTHY, M.A., M.Litt., Ph.D., D.Sc., (Copenhagen)
Former Professor & HOD,
Department of Ancient History and Archaeology
&
Director, School of Historical Studies.
University of Madras

UNIVERSITY OF MADRAS
Chennai

1999

FIRST PUBLISHED 1999
©UNIVERSITY OF MADRAS, CHENNAI, 1999

S. GURUMI
Departme

Price Rs. 120/-

PRINTED IN INDIA
AT PEARL PRESS, CHENNAI - 600 024.

PREFACE

I was awarded the University Grants Commission's Major Project in December, 1988 for the study of "Graffiti on the Ancient Indian Pottery and their significance". A Junior Fellowship was also sanctioned under the Project. The duration of the project was two years.

I utilised the project work for compiling a **Corpus of Indian Graffiti.** Both single and ligatured graffiti, list of prominent and distinct graffiti, basic statistics relating to the frequency of their occurrence, statistical data relating to the site-wise and culture-wise occurrence of the graffiti have been also prepared. All the graffiti were manually sorted to prepare the above said statistical data.

This project work has been undertaken not only to bring out the significance of the graffiti but also to serve as a source material for the decipherers of the Indus script. The subject itself may hereafter be nomenclatured as **Graffitology.** The short report and result of the work are presented in this Volume. Only select Photographs and drawings are given for purposes of illustrations.

I am grateful to the authorities of the University Grants Commission for the sanction of the Project which has enabled me to work on this fascinating project. It has taken me nearly three years to complete the work due to the complexity of the subject.

I am also grateful to the authorities of the University for having recommended my application for sanction of the project.

I am deeply grateful to Thiru A. Raman, former Commissioner of Museums and Thiru Natanakasinathan, Former Director of Archaeology, Government of Tamil Nadu for giving me access to the original graffiti bearing potsherds and unpublished photographs in their Departments. I am particularly indebted to Dr. Y. Subbarayalu, Professor of Epigraphy, Tamil University, Thanjavur, for permitting me to copy the unpublished graffiti excavated by him at Vallam and Kodumanal.

UNIVERSITY OF WASHINGTON

I am also thankful to the authorities of the Government Museums at Hyderabad, Pondicherry, Pudukkottai, Poondi, Madurai, Salem, Korkai, Karur, Dharmapuri and also to the management of the Kalaimagal Museum, Erode, for permitting me to examine and copy the original and unpublished graffiti bearing potsherds in their collections. I have also made use of the graffiti both published and unpublished, deposited in the Department of Ancient History and Archaeology, University of Madras. The graffiti published in the various Excavation Reports, **Indian Archaeology - A Review, Ancient India, Ancient Ceylon** and other publications have been also included in the present work. Re-photographs of the same have been also taken. These publications are listed in the Bibliography.

Thiru P.V. Radhakrishnan worked as my Junior Research Fellow under the project and assisted me in the collection of data during the tenure of the project work.

Thiru S. Sairaman, my Research Scholar has also cheerfully borne the heavy burden of work involved in collection and compilation of the work.

The graffiti symbols, charts and the maps were drawn by Artists Thiru S. Ram and Thiru N. Ranganathan.

I have received generous assistance and advice from many other institutions and individuals over the years for the compilation of this work.

I have had the benefit of long and fruitful discussion with Thiru. I. Mahadevan. I am thankful to Thiru. T.S. Subramania Rao who had typed the manuscripts throughtout the project. I am also thankful to Thiru. M. Cheran, Technical Officer and Mrs. R. Harini, Research fellow in the Department for having gone through the work in the press.

I am grateful to the former Vice-Chancellor Prof. P.T. Manoharan and the present Vice-Chancellor Prof. Pon Kothandaraman for having sanctioned the publication of the work.

Chennai.
29-6-99

Dr. S. GURUMURTHY

CONTENTS

SITES AND THEIR ABBREVIATIONS

ABBREVIATIONS.			SITE NAME.
KONDA	...	...	NAGARJUNAKONDA
QTA.	...	...	QUETTA
GAN.	...	...	GANESHWAR
M.DARO.	...	...	MOHENJODARO
C.DARO.	...	...	CHANHUDARO
C.GARH.	...	...	CHANDIGARH
KALI.	...	...	KALIBANGAN
LTL.	...	...	LOTHAL
VHO.	...	...	VAHARVO
M.WAR.	...	...	MAHESWAR
N.TOLI.	...	...	NAVDATOLI
T.WADA.	...	...	TEKWADA
C.DOLI.	...	...	CHANDOLI
D.BAD.	...	...	DAIMABAD
PRH.	...	...	PRAKASH
RNR.	...	...	RANGPUR
KTR.	...	...	KUNNATHUR
KPT	...	...	KOVALANPOTTAL
K.MEDU	...	...	KAMBARMEDU
VPM.	...	...	VIRAMPATTINAM
J.G.HALLI	...	...	JADI GENAHALLI
S.DURGA	...	...	SAVANADURGA
RAM.	...	...	RAMAPURAM
KCM.	...	...	KANCHIPURAM

ABBREVIATIONS.			SITE NAME.
KDU.	...	...	KUDIKKADU
ADK.	...	...	ADIYAMANKOTTAI
GTR.	...	...	GUTTUR
PRR.	...	...	PERUR
ALG.	...	...	ALAGARAI
KRR.	...	...	KARUR
TKP.	...	...	TIRUKKAMPULIYUR
URY.	...	...	URAIYUR
KRK.	...	...	KORKAI
AKM.	...	...	ARIKAMEDU
TNR.	...	...	T.NARASIPUR
SIM.	...	...	SALIHUNDAM
KSB.	...	...	KAUSAMBI
C.K.GARH	...	...	CHANDRAKETHUGARH
CDA.	...	...	CHARSADA
NKA.	...	...	NORTH KARNATAKA
KDL.	...	...	KODUMANAL
VLM.	...	...	VALLAM
B.GIRI	...	...	BRAHMAGIRI
G.M.C.	...	...	GOVERNMENT MUSEUM, CHENNAI
G.M.MADURAI	...	...	GOVERNMENT MUSEUM, MADURAI
K.A.M MUSEUM	...	...	KALAIMAGAL MUSEUM
HMH.	...	...	HYDERABAD MUSEUM, HYDERABAD
P.M.	...	...	POONDI MUSEUM

LIST OF ABBREVIATION

JOURNALS

A.I.	-	Ancient India
B.I.T.U.	-	Bulletin of the Institute of Traditional Cultures, Chennai.
I.A.	-	Indian Antiquary
I.A.R.	-	Indian Archaeology - A Review
J.M.U.	-	Journal of the Madras University
S.I.T.I.	-	South Indian Temple Inscriptions

LIST OF TABLES

LIST OF FIGURES

LIST OF PLATES

LIST OF PLATES [Contd....]

LIST OF PLATES [Contd....]

I. INTRODUCTION

The title of the U.G.C. Major Project is "Graffiti on the Ancient Indian Pottery and their significance".

AIM : The aim of the project work is to collect the data on the graffiti reported from various excavations and explorations conducted in different parts of India with special reference to the Iron age graffiti of South India, more particularly Tamil Nadu. After the collection, the graffiti have to be examined and classified into various groups. This classification may enable us to understand the meaning and the significance of the graffiti, which may serve as a key to the decipherment of the Indus Script.

The graffiti tradition made its first feeble appearance on the pottery of Neolithic Culture in India. In the subsequent periods it has become familiar with the pottery and the common man. The graffiti have been used even after the introduction of the early scripts like Ashokan Brahmi and Tamil Brahmi in South India. It continued to dominate the pottery industry right upto third century A.D. which incidentally was coeval with the end of the Sangam Age of Tamil Nadu.

There are many graffiti common to the Pre-Harappan, Harappan, Mature Harappan, Chalcolithic, Iron Age (Megalithic) and Early Historic Cultures. The morphology of certain graffiti remained unaltered through the ages, while majority of them have undergone structural changes with additions of strokes, elaborations and mutilations. There are also a good number of Indian graffiti similar to those found on the pottery of ancient Egypt, Ceylon, Japan etc. There are also a few similar to the Indus signs. There are still a few more which could be identified as Brahmi like letters or Brahmi letters of either Ashokan or Dravidian characters. There are a good number of graffiti picked up and portrayed on the earliest Indian coins known as Punch Marked Coins. These facts have come to light during the close examination of the numerous graffiti reported from different parts of India. Added to these, the painted letters or letter like signs seen in the Rock Paintings of Madhya Pradesh, Rajasthan and Uttar Pradesh as also in the early or Pre-iron age Rock Paintings of

Tamil Nadu have been taken up for close examination. To our surprise the painted letters found in the rock paintings of Tamil Nadu contain a mixture of Indus signs, Brahmi like letters and graffiti marks. Attention has been focussed to derive the roots and meaning of many of the distinct graffiti from these rock paintings. This methodology has been adopted to extract a meaningful identification of these graffiti.

There is a vacuum in the History of writing in India from the time of the fall of Harappan Civilization, to the sudden emergence of Brahmi script. This period technically speaking falls within the purview of Chalcolithic and South Indian Iron age. Graffiti bearing potsherds and pottery documents collected in substantial quantity particularly in South India during this period do not go without a significance. They cannot be casually brushed aside as mere scratches or potters' or owners' marks. They hide something to tell us about the writing system, writing material and means of communication through pictures or pictographs of our ancestors. They have been treated more or less as silent pictures or signs and simply as a puzzle. A mystery surrounds these graffiti. The present study has been directed to break the silence and expose the mystery that surrounds the graffiti.

Scholars like Hunt, Numa Laffitte, Yazdani, B.B. Lal and others have variously interpreted them.

All theories offered by the above mentioned scholars about the true nature and identification of these graffiti have got to be thoroughly probed with utmost caution and respect. For quite sometime, it was believed that majority of the graffiti of the Chalcolithic and of the Iron age pottery of South India, particularly Tamil Nadu are similar to Indus signs on the seals as well as on the Harappan wares. Therefore, it was held by Lal that "atleast some of the signs comprising the Indus script continued through time and space." The significance of this aspect of the graffiti is very crucial as it would throw some clues to the decipherment of the Indus script. This problem has been taken up for thorough investigation in the present work.

The problem whether the graffiti have assumed the role of Pictographs or Ideographs or Phonographs has not found any answer so far and that is due to the lack of material evidences. This has been borne in mind while undertaking this project.

The most striking feature is the occurrence of numerous Ligatured graffiti which comprises of Indus signs, Brahmi letter like signs and graffiti marks. The present study has located a good number of Ligatured graffiti with Indus signs alone from South Indian Iron age sites. The Ligatured graffiti have a crucial role to play in the decipherment of the Harappan script as well as on the authorship of the former. This aspect of the graffiti tradition has been taken up for thorough examination.

The present work also aims at the study on the relations between the graffiti and the Indus and Brahmi scripts, graffiti and the proto historic rock paintings, graffiti and World Archaic Scripts and the graffiti of Egypt, Ceylon, Japan etc.

SCOPE : The study covers a vast period of about 3000 years embracing different cultures right from the Pre-Harappan to the late phase or end of the Iron age, in South India. Strictly speaking the Pre-Harappan graffiti may not fall within the scope of our subject; however, it has been included with a view to provide a back ground or the base on which the Indian graffiti surfaced. Added to this, the Pre-Harappan Culture remains as the major contributor to the evolution of the Indus and other cultures of ancient India. The study begins with the graffiti of the Neolithic period; but it is a humble beginning not only for our study but also for the history of graffiti in India as the tradition of graffiti reared its head during this period.

The Harappan graffiti are also not very impressive and informative both in quality and quantity because the matured Harappan script was widely used throughout the Indus region.

Therefore the study mainly revolves around the graffiti of the Chalcolithic and Iron ages. Besides, the Late Harappan script noticed on the pottery from some of the sites like Lothal, Kalibangan, Daimabad and

others contribute to the study of the graffiti tradition in association with the Late Harappan script.

Though hundreds of Chalcolithic sites have been excavated throughout North India, only a handful sites like Rangpur, Daimabad, Navdatoli yielded the graffiti bearing pottery in bulk quantity which enabled the present study to dwell upon the crucial problems pertaining to the origin, evolution, pattern of distribution of graffiti tradition in Northern India and Central India and their influence and impact if any, on the graffiti tradition of South Indian Iron age. The problems encircling the origin and evolution of the Indus and Brahmi scripts have also been picked up and certain conclusions of far reaching consequences have been arrived at.

The reported or suggested similarity between the graffiti of the Chalcolithic period and that of the Iron age of South India, has been clearly demonstrated with the help of statistical data collected from almost all sites excavated so far barring a few sites, the reports of which have not seen the light.

The graffiti of South Indian Iron age which has drawn world wide attention since the last century, forms the central theme or the core of the present work. The graffiti marks from almost all the major and minor sites and burials have been systematically enumerated, photographed and tabulated so as to have a comprehensive idea and in depth study about their origin, evolution, pattern of distribution, chronology and characteristic features.

WORK DONE : Nearly 3056 graffiti have been recorded from the pottery reported from various archaeological excavations and explorations conducted in different parts of India since the last quarter of the 19th century. The graffiti picked up from recent excavations constitute more than 60% of the total graffiti recorded. Of these 3056 graffiti, 2288 are single graffiti which include 72 Brahmi letter like signs and the remaining 768 are Ligatured graffiti (Table II).

Line drawings of all the graffiti have been prepared; photographs of most of the graffiti i.e. 1200 have also been taken.

A manual sorting of the 3056 graffiti, has enabled us to identify as many as 513 distinct and prominent graffiti and the rest are either variants or mere replicas of the former. Therefore only these 513 graffiti are repeatedly drawn on the vessels from all over India (Figs. 3 to 9).

Tables showing culture-wise as well as site-wise distribution and the frequency of occurrence of these 513 distinct graffiti as well as Brahmi like signs have been prepared. Similarly, a table showing the site-wise distribution of the Ligatured graffiti has been included in the work. Further, the different symbols constituting the various Ligatured graffiti have also been illustrated with details of their frequency.

There are also figures showing (1) Indian graffiti and some archaic foreign scripts, (2) graffiti and the basic Indus signs, (3) graffiti and the Brahmi letters, (4) Indian graffiti and foreign graffiti and (5) graffiti and the symbols on the punch marked coins.

Two maps (1) showing the Major graffiti bearing sites in India and (2) graffiti bearing sites of Tamil Nadu have been prepared and included in the work.

The following Chapters are included in the present work.

METHODOLOGY :

In the first stage the various zonal circles of the Archaeological Survey of India, various Government and University Departments of Archaeology and Museums were contacted and the information about the availability of graffiti was ascertained. Later, some of these Departments and Museums were visited and the data on the graffiti was collected. Photographs and Line Drawings of each graffiti have been prepared for close examination. There are a large number of graffiti hitherto unpublished and they have all been recorded. Unpublished graffiti available in the various Departments and Museums have been personally examined by the author. Emphasis has been laid on the need to prepare a photographic documentation of all the available graffiti both published and unpublished and accordingly each and every graffiti bearing potsherds or vessel has been photographed. Re-photographs have also been prepared for the graffiti which are already published.

As many as nine tables providing statistical data on the various aspects of the graffiti tradition has been prepared to facilitate discussion on certain complex and vexed problems pertaining to the subject.

This methodology has been adopted to derive certain conclusion based on such statistical data.

Therefore the present work has taken the shape of "A Concordance of Indian graffiti", the first of its kind in the history of Indian Archaeology.

For the first time a new methodology has been applied in this present work to trace the root and identification of certain distinct graffiti as Pictographs or Phonographs from the human figures and objects of animate and inanimate nature found in the proto-historic or pre-iron age Rock Paintings found in Central India and Tamil Nadu.

This identification provides not only a meaningful reading of these graffiti but also throws clues to trace the origin and evolution of certain Indus signs and Brahmi letters.

Such of those graffiti have been interpreted or read by the application of Proto-Dravidian and Tamil words of Sangam Period.

Since the present author has been associating himself with the major archaeological excavations conducted by the Department of Ancient History and Archaeology, University of Madras since 1962, he has had the excellent advantage of personally handling the various types of potteries and the graffiti bearing pottery from Tamil Nadu. This has enabled him to release a monumental volume on the history of "Ceramic Traditions of South India". His personal observations of these pottery and graffiti has landed him to this fascinating study of the multi dimensional Graffitology and pronouncement of certain conclusions of far reaching consequence in the Annals of the history of Indian writing.

❖ ❖ ❖ ❖ ❖

II. BEGINNING OF CIVILISATION IN SOUTH INDIA WITH PARTICULAR REFERENCE TO TAMILNADU

The Neolithic age of South India has had a chequered history and therefore its importance has not yet been realised. It was Wheeler who in 1949[1] established the existence of Neolithic culture in India and that too after the excavations at Brahmagiri. Wheeler was followed by Thapar at Maski[2] and a few more excavations had been undertaken in the Karnataka region till recently. These excavations have carved out a place for Karnataka region in the Proto historic map of India. In Karnataka the Neolithic culture was in liason with Chalcolithic culture of Central India, but in Tamil Nadu only one site i.e. Paiyampalli has revealed some interesting information relating to the Neolithic pattern of South India. According to S.R. Rao, the excavator of Paiyampalli, there was a pure Neolithic culture that existed at Paiyampalli. This culture was not originally influenced by the Central Indian Chalcolithic cultural traits like painted pottery and parallel sided blades. Later they intruded into the site mingled with the Paiyampalli Neolithic culture.

It may be pointed out in this connection that the South Indian Neolithic culture is distinguished by the polished stone celts or axes and burnished grey ware with or without paintings. Metals like copper and bronze were sparingly used. But in Central and North India, these traits are not traceable and there was no pure Neolithic culture as such, instead, a Chalcolithic culture was predominently noticed - characterised by the use of profuse quantity of painted red ware, copper tools and copper objects. The South Indian polished axes and grey ware are absent.

But in certain areas, traits belonging to both cultures have been noticed, particularly at Nevasa in Maharashtra. Nevasa is considered as the northern most point where the Central Indian Chalcolithic culture and the South Indian Neolithic met. Beyond Nevasa also the traces of Neolithic Grey ware have been noticed in places like Pandurajar Dhibi (West Bengal), Chirand (Bihar - 1755 B.C.) and Eran (Madhya Pradesh).

Similarly, Paiyampalli may be considered as the Southern most point where the Central Indian Chalcolithic culture reared its head. But its arrival at this place may be slightly later than in Karnataka region. Beyond Paiyampalli this phenomenon has yet to be identified.

The foregoing facts suggest that Tamil Nadu during Neolithic period had developed its own material culture and stone equipment which had travelled to some regions in the North. It is worth mentioning at this juncture that in the excavations at Burzahom, Srinagar district in Kashmir, the polished axes and grey ware have been found and the Kashmir Neolithic culture is similar to the one in South India. The intervening region does not offer any clues to connect these two regions lying in the two extreme points. However, it may be suggested that the neolithic people of South India were spread over a vast area in South India as well as in some regions in North India. At a later stage, they came into contact with the Chalcolithic people of Central India and absorbed their cultural traits such as parallel sided blades, painted red ware etc. The rate of absorption becomes very slow and low when one moves towards South from the Godavari Delta. In Tamil Nadu, the North Western districts like North Arcot, Salem and Dharmapuri seem to have retained the original pure Neolithic culture of South India in the beginning and at a later stage, the Central Indian Chalcolithic influence penetrated into the area from the Southern Karnataka region. The northern Karnataka was the worst affected as it was exposed to the Central Indian Chalcolithic region. In Tamil Nadu, it seems that those influences thinned away and lost their identity. When they reached Tamil Nadu they could not move further south as no Chalcolithic painted ware has been reported from that area.

The Neolithic pattern of Tamil Nadu poses a big question i.e. it is confined only to the north-western districts, bordering the southern Karnataka region. What happened in other parts of Tamil Nadu during this period?. This problem has not been touched upon by any of the contemporary archaeologists. The Neolithic culture of Paiyampalli has been dated to C. 2000 B.C.

During the 2nd Millennium B.C. larger areas in Tamil Nadu were not occupied by the Neolithic people will be the answer, supplied by the

spade work. Because, the archaeological excavations conducted in the Southern and other districts so far have revealed the earliest culture being the Iron age culture. The bottom most layers in the excavated trenches contain only the Iron age Cultural traits such as iron objects, black and red ware, glass beads etc. Therefore the earliest occupants in these areas were the Iron age people. The beginning of Iron age in Tamil Nadu is at present dated roughly to C. 500 B.C. This implies that between 2000 B.C. and 500 B.C. these areas were left unoccupied. This may be one of the explanations offered. But this cannot be accepted.

Therefore this phenomenon has to be viewed from a different angle. It could be said that the above said districts were not occupied by any people during the 2nd Millennium B.C. It may be admitted that the Neolithic population of Tamil Nadu was thin as there are only a few pockets of the Neolithic culture located. They were not spread widely and evenly all over Tamil Nadu. But at the same time it has to be admitted that much field work has not been done in these districts with a view to excavate the Pre and Proto historic sites. To cite an instance recently the activities of the Neolithic man have been noticed near Vriddhachalam in South Arcot district. The rock paintings at Kilvalai and also the discovery of rock engravings near Dindivanam in the same district suggest the movements of Proto-historic or early or Pre-Iron age people in and around this district. But archaeologists may not agree that the Proto-historic culture did exist in these areas as the earliest culture revealed by the excavations being that of the Iron age. If this hypothesis is accepted then as indicated earlier that till 5th Century B.C. the majority of areas in Tamil Nadu could not have been inhabited at all. But this may not be possible for two reasons; firstly the chronology of Iron age or the beginning of Iron age may be taken back atleast to the beginning of the first Millennium B.C. The study of pottery types coupled with certain carbon 14 dates available for some sites like Korkai, Tirukkampuliyur etc. lends colour to this fact. Further the megalithic burial-cum-painted pottery from Coimbatore region bears some resemblance to the painted pottery from Iran where it is dated to the last quarter of the 2nd Millennium B.C.[3]

The second point is that the area around Tirunelveli district seems to possess a culture sequence suggesting a transition from the Chalcolithic to the Iron age as the pottery types like hand made spouted bowls of black and red ware from Korkai and Adichchanallur bear close resemblance to the Chalcolithic pottery of Central India and Indus Valley. The numerous bronze objects from Adhichchanallur burials further suggest that the site may have some Pre-Iron age culture complex. This can be established only after conducting fresh excavation at Adhichchanallur. Yet another point is that the white painted black and red ware and all black ware dated to 1800 B.C. at Ahar and other places in the north have been also reported from Madurai, Adichchanallur, Korkai and Uraiyur in Tamil Nadu. This pottery was found in association with the copper and bronze age cultures in North India and also with plain black and red ware similar to one found all over South India during the Iron age.

In the light of above discussion, it may be suggested that there could have existed a Pre-Iron age phase in Tamil Nadu atleast in the Lower Kaveri Valley in sites like Tirukkampuliyur, Alagarai, Karur, Uraiyur, Kodumanal besides in the southern districts in sites like Adichchanallur, Korkai. Further the Sanur burials seem to have contained this phase as feeble traces of iron are noticed in some of the burials. The find of ligatured graffiti from these burials certainly point to this direction of dating. The Pre Iron age may in all probability be coeval with the last leg of Central Indian Chalcolithic phase which may be dated to the last quarter of 2nd Millennium B.C. But this Pre-Iron age phase developed on its own.

The relationship between the Paiyampalli Neolithic culture and the Pre-Iron age phase is yet to be established. This was a transition period from the Neolithic to the Iron age and it is a very difficult problem which needs fresh study of Iron age sites.

Therefore the problem relating to the origin and antiquity of Iron age culture has to be re-examined, thoroughly thrashed out which can alone fill up the gap between the Neolithic and Iron age cultures in Tamil Nadu. But this development has not been uniformly felt in all parts of Tamil Nadu.

IRON AGE (MEGALITHIC AGE) — TRAITS AND CHRONOLOGY :

Therefore there is a vacuum between the end of Neolithic culture and the beginning of Iron-age culture and this vacuum has to be filled up. There are two possibilities to do this: (1) there should have existed a Pre-Iron age culture complex in some parts of Tamil Nadu, most probably in the northern districts and southern districts. (2) the Chronology of Iron age has to be revised and taken back to the end of the Neolithic period i.e. the last quarter of the 2nd Millennium B.C.

The single as well as Ligatured graffiti reported from the earlier levels of sites like Kodumanal, Karur, Tirukkampuliyur, Alagarai, Alagankulam suggest that they are certainly earlier than those of the Iron age. The Sanur graffiti may have certainly Pre-Iron age origin.

For the backward revision of the chronology of the Iron age the following facts are worth considering :

The Iron age constitutes a brilliant Chapter in the early history and civilisation of South India. The Iron age is characterised by the following traits :

1. Introduction of Iron industry on a large scale
2. Introduction of rice cultivation and tank irrigation
3. Disposal of the dead in different types of burial pits and urns. They are called megalithic burials.
4. Use of black and red ware on a large scale
5. Invention of writing
6. Issue of currency
7. Contacts with far off countries like Greek, Rome, China, Iran etc.

These inventions had a tremendous impact on the everyday life of the people. The people had led a very comfortable and contended life. This civilisation was of a superb nature and spread over the whole of South India. The culture flourished on a grand scale in Tamil Nadu.

The Iron age communities are the immediate successors of the Neolithic people. But their culture was far more advanced than that of the Neolithic people. How did they reach that stage of advancement still remains as a mystery. They had transformed the society very nicely and comfortably from its stone age character to a well advanced civilised pattern. Many scholars are of the view that the Iron age people are the new comers to South India. They are said to have over powered the native population and introduced their cultural traits into the country. This may lead us to deal with the origin and authorship of this culture in the South more particularly in Tamil Nadu. Recent archaeological researches and discoveries in Tamil Nadu have thrown some new light on these problems.

With regard to the origin of this culture, many of the scholars hold the view that it came from the Mediterranean region as the megalithic burials from the area are similar to those of South India and dated earlier than those of the latter region. Lal traced them to Nubia in Egypt[4] and Balakrishna Nair to Near East on the analogy of certain pottery types[5]. They were inclined to trace the origin of this culture to some foreign country because they were always under the impression that South Indian megaliths and their characteristic pottery namely the black and red ware are later in date than those found in the former countries. But recent researches on the pottery fabrics, and types of the Iron age culture and that of the Neolithic culture in Tamil Nadu by the present author have brought to surface the following points :

1. There was a mixed population in the Iron age following different methods for the disposal of the dead.
2. There were certain groups of foreign people particularly those from Iran responsible for the special types of pottery vessels found in the Coimbatore megalithic burials and Palani Hills near Kodaikkanal.

3. There was also sizeable population, who were the descendants of the Neolithic natives. There are a number of pottery shapes like bowls, cups, plates, cup-on stand, ring-stand, lipped bowl, trays etc. common for both.

4. Majority of them are the carrier of Indus culture and script.

The above points suggest that the majority of the Iron-age communities are the natural successors of the Neolithic people. Therefore it may be suggested that the Iron age culture originated in the South and spread to other parts of India. Further, the antiquity of iron in the south is now pushed back to 1020 B.C. as seen in Hallur in Mysore[6]. In North India iron has been found in association with the Painted Grey ware culture datable to 1200 B.C. or so[7]. Hence it was argued that Iron is earlier in North India than in the South. It was introduced into South India by the northerners. The recent excavations at Korkai have revealed the Iron age habitational deposit datable to 8th century B.C. But large hand made bowls of black and red ware with spouts luted at their waist from this site may be dated to the last quarter of the 2nd Millennium B.C. on the basis of their similarity with those from Central Indian Chalcolithic sites and Late Harappan sites[8]. The Nallampatti (Coimbatore District) grave yard pottery may be also taken to the same period[9]. Hence as argued earlier the beginning of the Iron age in the south has to be fixed somewhere in the last quarter of the 2nd Millennium B.C. and also for the Iron. The abundant use of iron is noticed in all the iron age sites of South India. The Iron industry has made a tremendous progress in the South. Though iron is dated to 1200 B.C. in North India, the dating refers to only the stratified layers wherein were found a few iron pieces. The industry was not represented as such. The painted grey ware people might be simply aware of the existence of the metal at that period, but they had not exploited the iron mines and developed the industry as noticed in the South.

Therefore whether iron travelled from the south to north or vice-versa, it seems to have been introduced into Tamil Nadu at very early date ie. 1200 B.C. Thus the beginning of Iron age culture in the south should be revised and put around 1200 B.C. as mentioned earlier. This dating rejects the earlier dating like 5th or 3rd century B.C. to the beginning of Iron age culture in the south given by Wheeler and others. The culture continued to survive till 3rd century A.D. Similarly, the graffiti found on the pottery of the Iron age sites and burials in South India may have to be given the earlier dating i.e.1200 B.C. The comparative study of the graffiti marks and other signs shown in the rock paintings at Kilvalai and Maharajakadai lends additional proof to this earlier dating for the graffiti[10].

Regarding the authorship of this Iron age culture or the so called Megalithic people, it has been held by scholars that they are Dravidians. The study of skulls from Adichchanallur burials also point to this fact. Further, some of the finds from Adichchanallur like iron trident, banner bases, representations of fowl in bronze, etc., suggest the existence of the cult of Muruga or Velan, the Tamil God. There are also other factors derived after a careful study of the numerous finds from the excavations in the iron age settlements in Tamil Nadu which strongly support the theory that the authors of the culture were the Dravidians.

Further, the later phase of the Iron age and its continuity may be considered to coincide with the Sangam Age. Mahalingam who excavated the Lower Kaveri Valley basin has fixed the middle of 1st Millennium B.C. as the period which is being portrayed in the Sangam Literature. According to Mahalingam, "The alluring picture of highly sophisticated society gathered from the early Tamil literature may be compared with results obtained by the spade of the archaeologists before forming any reliable idea of the material culture of the people of the period. Such archaeological evidence is calculated to support, supplement or correct the otherwise one sided picture we have of the early culture of Tamil Nadu[11].

In the foregoing pages, a detailed discussion relating to the possible existence of Pre-Iron age culture as well as the urgent need to revise the chronology of the Iron age burials and settlements in Tamil Nadu has been initiated with the view to consider the possibility of filling up the vast gap of time between the Harappan culture and that of the South Indian Iron age culture. The material evidence available on hand also offers convincing clues to establish the existence of a Pre-Iron age culture

in Tamil Nadu which seems to be coeval with that of the Malwa and Jorwe cultures. Since the bulk of the total collection of graffiti from Indian sites come from Tamil Nadu coupled with the occurrence of similar graffiti in the Pre-Iron age cultures of Central and Northern India (including Indus signs), there is no justification to accept the existence of vast time gap between the iron age of Tamil Nadu and that of others. Further the recent discoveries of numerous rock paintings with Indus signs, Proto-Brahmi signs and graffiti marks of Iron age in Tamil Nadu lead us to the pronouncement of the above views. The rock paintings certainly belong to the Pre-Iron age.

The Iron age cultures being equated with the Pre-Brahmi period or levels of the excavated sites, though no such nomenclature has been adopted by the excavators of the sites mentioned in the present work. Since the present author had the advantage of collaborating himself with the most of the major excavations in Tamil Nadu leaving a few like Korkai, Karur, Vallam and Kodumanal, he had the best opportunity to examine in person the pottery types collected from these sites and he has been urged to pronounce the revised chronology referred to.

Therefore the above discussion and the conclusions are purely based on the personal observations of the present author of the various pottery types of South India. In the light of the discussion in the foregoing pages, it may be suggested that a demarcation should be made between the Iron age and Pre-Iron age and Pre-Iron age burials and settlements in South India.

But in the absence of a clear cut evidence for demarcation to distinguish the early or Pre-Iron age levels from that of the Iron age levels, certain graffiti from sites mentioned above have been considered as belonging to the Pre-Iron age phase or levels based on the graffiti bearing pottery types and other associate finds. Therefore the nomenclature "Pre-Iron age" has been adopted in the present work in respect of the above said sites.

REFERENCES

1. R.E.M. Wheeler, "Brahmagiri and Chandravalli Excavations", A.I., No.4, (1949), PP. 180-311.
2. B.K. Thapar, "Maski 1954, A Chalcolithic site of the Southern Deccan", A.I., No.13, (1957) PP. 143-142.
3. S. Gurumurthy, "Recent Archaeological Investigations and Tamil Culture", B.I.T.C., (1976), PP.143-165.
4. I.A.R, 1961-62, PP. 69-71, Pls. CXV, CXVI.
5. Balakrishna Nair, "The problem of Dravidian Origins - A Linguistic Anthropological and Archaeological Approach" J.M.U., Vol., XLIV., PP. 1-94
6. S. Gurumurthy, Ceramic Traditions in South India, PP. 242-245
7. S. Gurumurthy, "Recent Archaeological Investigations and Tamil Culture", B.I.T.C., P.158.
8. Ibid., P. 158.
9. Balakrishna Nair, Op.Cit. PP.78-85.
10. See Chapter V for further details.
11. T.V. Mahalingam, Report on the Excavations at Lower Kaveri Valley, (1970).

III. POTTERY AS WRITING MATERIAL - SCRATCHING TECHNIQUE - DIRECTION OF WRITING

WRITING MATERIAL :

In the Pre and Proto-historic period men selected the rock shelters and rock beds and surfaces for displaying their inner thought and creative genius. This resulted in the production of rock engravings and paintings and these constitute the earliest form of creative art that mankind produced. This has been noticed all over the world including South India and Tamil Nadu. The pictures, signs and the painted scenes tell us the tale of the people of the by gone days. Before the invention of writing, man used these pictures, signs and paintings to convey his thoughts and ideas to others. His day to day life, environs, flora and fauna and artifacts, utensils, magico-religious figures, cult objects and many other mysterious objects have been stylistically as well as symbolically portrayed in the paintings.

Therefore the stylised pictographic signs and letters of the latter period owe their origin to some extent to these paintings. This fact is explicitly borne out when we examine the root of the original corresponding objects of the majority of the signs of the Indus script, Brahmi script and the graffiti in India (See Chapter V).

The rock surfaces have continued to serve man as the medium of writing in the subsequent periods in Indian history upto to-day. The Asokan rock edicts and pillar inscriptions are the principal products of this medium.

Besides these, palm leaf manuscripts were used in the early stages of writing as a medium of writing right from the very beginning of history but they have disappeared on account of their perishable nature.

Yet, man discovered another peculiar medium for writing and this was none else than the earthern ware vessels. In the initial stages scratches and stylised pictures and subsequently the various scripts

invented were drawn on these vessels. The pottery bearing these scripts or inscriptions have been termed as "Inscribed Pottery" or "Inscribed Potsherds". But the pictures and other unidentifiable marks, symbols and scratches have been termed as "Graffiti". Therefore the term "Graffiti" generally denotes scratches and stylised pictures of identifiable and unidentifiable marks or symbols on the pottery, and "Inscribed Sherds" denoting the pottery carrying the inscriptions written in well known script. Strictly speaking even the pottery with Indus script has to be called as graffiti only. For instance, Mackay called Indus Inscriptions on the pottery as "Graffiti" only. But in the present work these inscribed sherds with Indus signs have been excluded from the purview of graffiti.

Pottery bearing the graffiti and inscriptions have been found all over the world right from the beginning of the fourth millennium B.C. and therefore the pottery was one of the earliest materials of writing in the ancient world. The clay tablets were the next best medium of writing in the ancient world.

GRAFFITI BEARING AND INSCRIBED SHERDS AS DOCUMENTS :

It is interesting to note that the ancient man not only wrote on the pottery but also prepared potsherd documents for record purposes. Though the graffiti occur on the full vessels as well as on tens of hundreds of broken pot sherds, these two should not always be viewed as belonging to one and the same group. They belong to two different categories.

In the case of the former, the graffiti or pictographs were scratched at the potters' yards at the instance of the owners. But the second category offer something more than that. Most of the sherds seem to have been served as records and kept by the owners for purposes of economic transactions for posterity or remembrance. A careful examination of the potsherds which vary in size from about 1.5 cms. to 20 cms. suggest that the plain broken sherds were initially selected to suit the size or length of the graffiti intended to be drawn and then the signs were scratched on them to record the subject of their choice. The size

of the majority of the graffiti bearing sherds (length and breadth) is so much that they could offer only the space more or less required for enclosing the graffiti. That means their size was selective and prepared out of the broken sherds of the vessels. They were grounded and cut to the required size, that means the potsherds were meant for keeping as records. The traces of grounding the sherds at the edges are clearly visible in the sherds. This phenomenon may be explained as follows :

The large number of graffiti bearing sherds from site like Tirukkampuliyur, Alagarai, Uraiyur, Kodumanal etc. do not offer any satisfactory explanation why they were kept in these sites in such large quantity. Hitherto they have been treated as simply sherds or fragments of broken pots carrying graffiti. But the study reveals that the fragmentary nature of the graffiti bearing potsherds was not accidental or as a result of breakage of the original vessels which carry the graffiti but because of the intention of the persons who desired to keep certain names or records of his transactions on the potsherds. This is possible because in the Proto-historic period and early Iron age there was not other better material of permanence than pottery so easily and readily available for common people. As everybody knows that pottery was and has been the common man's property in society. No doubt stone was used during Ashokan time for purposes of writing, but it was used for writing royal edicts unconnected with the day to day life of the common folk. The graffiti and inscribed sherds prove beyond any possibility of doubt that pottery served not only as a principal material of writing but also as recorded documents.[1]

Egyptians, Sumerians and certain other people of the ancient civilisation used clay tablets for purposes of transactions. The Harappans used the faience and steatite seals mostly for their transactions. But as will be explained later the Dravidians particularly the Tamils not only used the clay seals but also potsherds seals for transaction[2]. It is yet another unique and rare pieces of evidence to demonstrate how the broken potsherds were shaped to serve as seals for economic transactions.

The potsherds were also used as spindle whorls after being grounded and cut to the required circular size. Numerous such spindle whorls have

been reported from the excavations at the Lower Kaveri Valley. Hop scotches used by the children for playing certain games were also prepared out of the broken potsherds. There are plenty of such objects collected from Tirukkampuliyur, Alagarai, Uraiyur, Kanchipuram and other sites.

These examples are sufficient to suggest the utilitarian value of the pottery not only in the field of writing but also in the fields of children's games and other arts and crafts of the ancient Tamils.

The present author has coined a meaningful term for "Group Graffiti" as "Ligatured Graffiti". They have been collected from full vessels as well as from fragmentary potsherds, the significance of which has been discussed in the Chapter VII. The Ligatured graffiti on the sherds offer yet a strong evidence for considering such sherds as pottery documents intended for keeping records of personal names, events and transactions.

Regarding the single graffiti, their identification mainly depends upon many factors such as location, associate finds, their cultural context, morphology, conventionalised or stylised or symbolised form and the corresponding original objects from which they stemmed or evolved and this aspect has been dealt with in Chapter V.

METHOD OF SCRATCHING :

Let us now examine the method of scratching the graffiti on the vessels. The bulk of the graffiti are post firing and there are only a few pre-firing graffiti. The microscopic examination of these graffiti offers this explanation. The post firing graffiti are very dull, thin and feeble while Pre-firing ones have thick, flat, deep, cutting into the outer layers of the walls of the vessels or sherds.

The graffiti appear on the various portions of the exterior walls of the vessels such as rim, neck, shoulder, belly and base. The lids also carry the graffiti. The interior of the vessels such as bowls, dishes, dish-on-stand, and saucers bear graffiti. But they constitute a very meagre

percentage of total graffiti collected. The interior portions of such of these vessel types visible to the naked eyes were alone chosen for displaying the graffiti. However, the rim or the neck portion was preferred for displaying the Ligatured graffiti and the inscribed letters.

The style of displaying the graffiti varies from vessel to vessel from site to site depending upon the nature of the site and the utilitarian values of the vessels and their association either with the dead or alive.

DIRECTION OF WRITING :

Regarding the direction of scratching or writing, the Ligatured graffiti offer certain clues. It has been observed that the symbols are scratched from right to left as shown in the case of Indus script by Lal and others. The superimposed or overriding symbols in a few Ligatured graffiti indicate this direction. This aspect has been dealt with in detail in Chapter VII.

REFERENCES

1. The potsherds with graffiti from the recent excavations at Arikamedu (1992) do not conform to the hypothesis suggested above. Here almost all the sherds numbering 42 are too fragmentary and the graffiti on them are also broken and lost their original form. Almost all the sherds carry the mutilated graffiti.

2. The details of the seals are being discussed separately elsewhere in this work.

❖ ❖ ❖ ❖ ❖

IV. GRAFFITI COLLECTIONS AND THEIR SIGNIFICANT CHARACTERS

A. COLLECTION OF GRAFFITI AND GRAFFITI BEARING SITES :

The present work has enabled the author to collect nearly 3056 graffiti from 108 sites excavated and explored all over India. They belong to various cultures such as Neolithic, Pre-Harappan, Harappan, Chalcolithic, South Indian Iron age Burial and Habitation sites.In addition to these sites the collection of graffiti available in the various Government and Private Museums as well as the collections of Hunt, Numa, Yazdani and Lal have been included in the study.

Of these 108 sites, 4 belong to Neolithic, 5 to Pre-Harappan, 18 to Harappan, 22 to Chalcolithic, 26 to Iron age burials and 33 to Iron age habitation cultures (Table I.)

The total collection of 3056 graffiti have been subjected to close scrutiny and manual sorting. This has resulted in the preparation of the final list of 513 prominent graffiti (Figs.3-9) and 72 Brahmi letter like graffiti among them (Figs. 50-51). There are 768 Ligatured graffiti located from among the total graffiti. The frequency of occurrence of each of these graffiti has been tabulated. (Table V).

The graffiti bearing sites have had a wide distribution all over India as shown in Map (Fig.1). A bulk of the total graffiti has been drawn from a cluster of Iron age burial and habitation sites in Tamil Nadu also shown in the Map (Fig.2). The intensive study of the above mentioned graffiti have revealed certain significant features hitherto unknown. The characteristic features of the graffiti belonging to the different cultures have been deduced and described in the following pages.

B. PROGRESS OF GRAFFITI TRADITION, ASSOCIATE CULTURES AND CHARACTERS

Graffiti and Neolithic Culture :

It is very difficult to trace the origin of graffiti on ancient Indian pottery. The Neolithic pottery collections from various parts of India including Tamil Nadu do not bear much evidence for tracing the beginning of graffiti to that period. Even the profuse quantity of Neolithic pottery unearthed from Eastern India do not convey graffiti as a normal feature in any context. However, there are a few stray instances as at Burzahom, Nagarjunakonda, Piklihal and Kallur, where one or two graffiti have been reported. These scratches may also be taken for incisions rather than graffiti as the Neolithic people preferred to decorate their earthernware vessels with some incised designs, eg. T. Narasipur. However, the sun symbol makes its appearance either as graffiti or painted mark in the above mentioned sites.

Graffiti and Pre-Harappan Culture :

The Pre-Harappan graffiti have been noticed on the pottery of the Quetta Valley and other numerous sites in the Western and Southern Baluchistan lying outside India. Hundreds of painted marks and potters' marks have been reported from the above mentioned sites. These graffiti seem to have influenced the formation of the Indus script and the Chalcolithic graffiti tradition. Lal has pointed out that the Pre-Harappan graffiti formed a part and parcel of the signatory available on the Harappan seals[1].

There are 30 Pre-Harappan graffiti similar to the Chalcolithic and 36 to the Iron age graffiti (Table IV). There are 14 graffiti which also exactly look like the South Indian Brahmi letters (Figs. 50 & 51).

Graffiti and Harappan Culture :

Graffiti from Harappan sites are not many. The graffiti which we mean are those which bear non Indus signs and not such of those

graffiti with Indus signs. This has to be clearly specified here because initially Mackay, Vats and others have simply termed the Indus signs and Non-Indus signs or symbols which appear on the potsherds as graffiti. But in our present work we are concerned only with those of the graffiti which bear only the non-Indus signs as well as single Indus sign like symbol. The paucity of the above said graffiti in the Harappan sites or levels of Harappan sites suggest that the tradition of graffiti has not received greater attention during this period as the Harappan had already possessed a well developed, mature script. Many scholars like Lal and Parpola have held the view that the Harappan script might have originated in the Pre-Harappan times[2] Therefore there is a possibility that the Harappans would have picked up certain graffiti from the Pre-Harappan culture, to evolve their own writing system i.e. a sizable number of Pre-Harappan graffiti marks seem to have served the Harappan to formulate their own script. This may be one of the reasons why there is a paucity of graffiti with Non-Indus signs in the Harappan sites or levels in the Harappan sites like Lothal, Kalibangan etc.

The present work however has included a few inscribed sherds of Indus script for the purpose of comparative study of Ligatured graffiti from Chalcolithic and Pre-Iron and Early Iron age sites with the former (Table IV).

The Harappan graffiti mostly consist of single sign or symbol and pair of symbols. 57 of them are similar to the Chalcolithic and 74 to the South Indian Iron age graffiti (Table IV).

The graffiti of Non-Indus signs of the Harappans exhibit certain amount of perfection in their morphology, and this is the most striking characteristic feature of the Indus graffiti. This may be due to the impact of the Indus letter signs on the formation of the graffiti.

But the potters of the subsequent period did not bother to adhere to any norms regarding the size of the graffiti and drew graffiti of various size and proportions.

Graffiti and Chalcolithic Culture :

The Chalcolithic pottery of North and Central India bear unmistakable evidence for the use of graffiti as a normal feature. But this is not so in all cases. There are only a handful of sites like Rangpur, Daimabad, Navdatoli where graffiti have been reported in abundant quantity. Almost all the major ceramic traditions of the Chalcolithic culture such as Jorwe Ware, Malwa ware, black and red ware and black on red ware bear graffiti. For instance, Rangpur yielded 222 graffiti and Daimabad 172 graffiti whereas the other major sites yielded only small number of graffiti. This disproportionate occurrence of graffiti on the Chalcolithic pottery is not uncommon or unusual as the same phenomenon has been noticed in the case of South Indian Iron age graffiti also.

The early Chalcolithic people as seen at Rangpur seem to have had greater preference for the tradition of graffiti and the tradition seems to have lost its charm and glamour in the later Chalcolithic period as evidenced from the sporadic occurrence of graffiti in the later levels of many Chalcolithic sites including Rangpur and Daimabad. During the Iron age which succeeded the Chalcolithic period, the tradition had almost fallen into disuse barring a few sites such as Sonepur, Rajghat, Chirand, Kausambi etc., where the graffiti have been reported in small numbers in association with the N.B.P. ware tradition.

A careful examination of the various graffiti from Rangpur and other sites suggest that the painted marks and motifs noticed on the Chalcolithic pottery could have greatly inspired the potters to draw similar marks or other motifs on the vessels after firing. For example, the marks representing sun, swastika, star, wheel, tree, leaf, ladder, as well as the various flora and fauna, linear and geometrical designs are seen painted as well as scratched as graffiti on the Chalcolithic pottery. This feature has been clearly noticed particularly in sites like Daimabad, Jorwe, Nasik, Ahar etc. Therefore it may not be far wrong if we suppose that the painted marks and motifs of the Chalcolithic pottery were the source of inspiration for the birth or ushering of the tradition of graffiti of the Chalcolithic culture. As said earlier, it may also be pointed out at this

juncture that the Pre-Harappan or Early Harappan painted marks and motifs as well as the graffiti as noticed on the pottery of Quetta Valley and other sites in the Western and Southern Baluchistan lying outside India would have too influenced the graffiti tradition of the Chalcolithic people. A comparative analysis of the Pre-Harappan and Chalcolithic graffiti clearly demonstrates this hypothesis as there are about 30 symbols common to both cultures. Therefore the foregoing analysis suggest the following :

The tradition of graffiti of the Chalcolithic culture may have indigenous origin as evolved from the traditional age old painted marks and motifs executed on the vessels.

The Pre-Harappan painted marks, potters' marks and graffiti would have also supplied ideas or symbols for developing and enlarging the list of graffiti in the early Chalcolithic period. The practice of scratching graffiti would have gained momentum on account of the transmission of ideas or symbols from the Pre-Harappan to the Chalcolithic people thereby transforming the practice into almost a tradition of the Chalcolithic culture.

The average size of the graffiti varies from 2 Cms. to 10 Cms. But there are also graffiti of abnormal size measuring upto 24 Cms. as seen at Rangpur. There are still a few which are drawn from top to bottom of the Vessel as seen at Prakash and Daimabad etc.

A few signs in the Indus script has been picked up by the Chalcolithic potters for inclusion in the tradition as evidenced from Daimabad, Rangpur and other sites. But the Harappan influence in minimised as far as the graffiti tradition is concerned as pointed out earlier the Harappan themselves were not very enthusiastic about the tradition of graffiti.

The Chalcolithic graffiti and South Indian Iron age graffiti have 98 common symbols. But they are of general character; symbols such as the sun, mountain, tree, leaf, ladder, fish and other linear patterns may be cited as good examples for the general nature. There are 83 graffiti which are peculiar to the Chalcolithic period alone. For instance, the symbols like stylised animals are unknown to the potters of South Indian

Iron age with exception like Kodumanal. There are only 4 prominent graffiti which occur more than 10 times (Table VI).

There are also a few Brahmi letter like graffiti on the Chalcolithic pottery which could have influenced the formation of certain Brahmi letters of the later period or it could be said like this. There are certain Brahmi letters such as **ka, ta, Ma, Ya,** which could have been evolved from the Chalcolithic graffiti (Figs. 50 & 51).

According to Sundara[3] the influence of graffiti of the Chalcolithic culture had perculated into the Megalithic culture complex of the Krishna-Thungabhadra Valley. But this phenomenon cannot be observed in the Megalithic cultural complex of Tamil Nadu as the black on red ware tradition and the crested grinding edge technique have not reached the region. The Rangpur graffiti tradition could have influenced the potters of Tamil Nadu to draw some ideas about the signs or symbols to be introduced into the graffiti of the region. But there is no evidence for any direct contact between the two cultures as they are separated by a vast span of time and distance.

Graffiti and Iron age Culture :

This graffiti may be classified under three heads :

1. Graffiti from the burials
2. Graffiti from Habitation sites and
3. Graffiti from Burial-Cum-Habitation sites.

1. Graffiti from Burials :

The graffiti from the Iron age burials have long drawn the attention of scholars like Branfil (1881), Foote (1890), Hunt (1916) and (1924), Yazdani (1916-17), Numa Laffitte (1931), Casal (1931), Wheeler (1946, 1947 and 1948), Thapar (1954), Banerjee (1959), Lal (1962), Sundara (1976) and others.

The author has examined the graffiti numbering 584 from pure Burial sites as well as from the burials in the burial-cum-habitation sites. The graffiti already reported by the above mentioned scholars have also been subjected to intensive classification and detailed examination. They are dated to a period from 5th Century B.C. to 3rd Century A.D. based on the stratigraphical evidences supplied by the spade work.

For intensive study purposes as also to find out the similarity or difference or relationship between the burial graffiti and the graffiti from the habitation areas, the burial graffiti has been classified as (I) Graffiti from pure burial sites alone and (II) graffiti from Burial-Cum-Habitation sites.

A detailed study of the graffiti from the pure burial sites reveal the following features :

They are mostly post-firing drawn with some sharp instrument or stylus. The lines are very feebly drawn in most cases. Only a few graffiti show lines drawn boldly. The characters of the graffiti suggest that they are executed by a shaky hand or otherwise by inexperienced or ill informed scribes who may be none other than the potters themselves barring a few exceptions. The South Indian potters seem to have been not very familiar with the tradition of drawing symbols or signs on the earthenware vessels. They were not also good at the execution of the painted designs on the vessels or it may be said that they have done the job very casually as the painted designs were simply linear ones such as wavy lines, circles, strokes etc. However, the habitation site at Kanchipuram the painted designs were drawn with some sharp instrument. The Pre-firing graffiti which have been noticed on a few sherds or shapes do not have deeply cut marks but have only thick broad lines which caused peeling off the slip coating together with the thin film of outer surface as noticed in the collections at Government Museum, Chennai and Pondicherry. Had the potters been accustomed to the technique of execution of painted marks on the vessels as seen in the case of Chalcolithic potters, it would have enhanced the value of the burial graffiti as well. But even after the introduction of the Russet coated and painted

ware tradition in the Early historic period, the designs and the motifs continued to be very simple in characters and do not bear any resemblance to the graffiti of the Early Iron age or the contemporary late phase of Iron age, the latter coinciding with the Early historic period i.e. the so called Sangam Age in Tamil Nadu.

The graffiti occur alone or in pairs or in association with as many as 6 or 5 symbols (Ligatured graffiti). The Ligatured graffiti were prominently noticed earlier in sites like Sanur, Savanadurga and Brahmagiri. The recent excavations have added more number of such Ligatured graffiti to the tradition of burial graffiti (Tables VII, VIII, Figs. 25-34).

The individual or Ligatured graffiti is scratched on the rim, shoulder, belly and bottom portions of the vessels. The same symbol is repeated very rarely on the shoulder or belly on two opposite sides of a vessel at the following sites.

1. Government Museum, Chennai - (Plate I-1)

2. Coimbatore Museum, Coimbatore - (Plate I-2)

3. Poondi Museum, Poondi - (Plate I-3)

Habitation pottery too reflect this feature eg. Adiyamankottai (Plate I-4); of the above mentioned sites, at Poondi Museum, a pair of same graffiti is noticed on two different Painted red ware vessels. However the graffiti and the painted design are shown separately.

Instances of two different symbols scratched on two different portions of the same vessel are not unknown (Plate I-5).

The shallow dishes and eating plates carry the graffiti on the interior portions (Plate II - 1,2).

The maximum size of an individual symbol or sign is usually large measuring 6 cms. and the minimum size measuring upto almost 1 cm. There are also graffiti of abnormal size measuring upto 15 cms. as seen

at Kodumanal. But the size of the bulk of the graffiti measures an average 3 to 6 cms. in length. The size shows that they are not free hand symbols but drawn with some sharp instrument.

Usually the collection of graffiti from an individual burial is very meagre and the collection from a group of burials in a site as a whole is also not impressive when compared to those from an individual trench or from the trenches of a habitation site as a whole. This is based on Kodumanal excavations (Table II).

There are also burials without yielding any graffiti within a burial complex as seen at Kodumanal where out of 13 burials exposed only ten have yielded graffiti bearing pottery and also at Sanur not all burials have yielded graffiti.

Still there are a few burial sites which have not shown any trace of association with graffiti. The best example being the excavations at Mangadu burial complex in Kerala[4].

Burials of all classes such as urn burials, cairn burials, cist burials, pit burials, dolmens and menhirs have yielded graffiti bearing pottery.

The graffiti bearing pottery were found in the burials in association with terracotta figures, beads, bangles, gold and silver ornaments, punch marked and Roman coins, metal utensils and objects etc; of all the metals iron was the predominant metal familiar to the authors of the burials; next only comes copper and bronze that too in a meagre quantity. Though the graffiti were always associated with the iron using communities as said earlier there are also burials without yielding iron objects, eg. Kodumanal and Sanur. However, the Sanur site is rich in yielding ligatured graffiti. The site has yielded 28 ligatured graffiti out of 38 graffiti. Further, the graffiti from Savanadurga and Jadigenahalli are only ligatured. This phenomenon is rather unusual and has to be examined. The dating of the Sanur burial has to be re-examined, and in all probability the Sanur burial pottery and the graffiti may be ascribed to a period earlier than 5th Century B.C. (See Chapter II for more details).

The Ceramic Industries which carry the graffiti tradition include almost all the Iron age pottery assemblage. They are the red slipped ware, the black-and-red ware, all black ware, the russet coated painted/black-and-red ware and red ware. Of all the pottery the red slipped ware was chosen for the lavish display of graffiti, then comes the black and red ware and other pottery types. The red slipped pottery was the common man's property of the Iron age people and this accounts for the occurrence of large number of graffiti bearing red slipped ware.

The following pottery shapes carry the tradition of graffiti and they are shown below in the order of preference for the display of graffiti by the potter.

a) bowl

b) dish or plate

c) round or flat bottomed vase

d) three legged jars

e) ring stand

f) urn

g) lid

However, the majority of the graffiti have been noticed on the bowls only.

The graffiti have been noticed on full vessels in majority of the cases (Plates, II-3, 4 and Plate III - 1, 2, 3 & 4).

An inscribed sherd with Brahmi collected from a burial at Kodumanal bearing the personal name **Visaki** gives some clues as to the probable identification of the graffiti found in the burials. It is unique in the sense that it indicates the name of the owner, who was dead and buried. On

the basis of this, certain graffiti from the burials, whether it is single graffiti or ligatured may be identified with the names of the owners or in other words these graffiti may be called owners' marks (i.e. marks of identification). Though it is a solitary single instance, it helps us to unlock the meaning of the graffiti from the burials.

There is no evidence whatsoever to suggest or to link a particular graffiti or group of graffiti to any particular megalithic burial type or types. However, in a given burial site certain graffiti may differ from burial to burial or a few others may be common to certain types of burials. But this difference or similarity of graffiti may not be noticed in respect of the same burial types found in other sites within the same region or outside the said region. This clearly demonstrates that the graffiti have nothing to do with the burial types as they seem to stand for the owners' marks or names in most cases. It may be due to the fact that the owners after death were buried in the burial types they preferred or wished while alive. The same mark (or name) must have been adopted by many individuals living in different sites and in different regions. Sanur, Savanadurga and Kodumanal graffiti (single and ligatured graffiti) may be cited as good examples for this proposition, because in these sites only 3 or 4 symbols alone are repeatedly shown positioned in different manner in the ligatured graffiti. This arrangement or repetition of similar symbols may indicate same names or marks adopted by the dead (Figs. 27-28). This may explain the occurrence of the same graffiti in different burial types in a particular site or in a region as a whole. Similar argument or explanation may be offered to the occurrence of the duplicates of the same graffiti in a given burial type or burial complex in the same site.

Majority of the graffiti from the burials have parallels in the habitation sites located in the same area (burial-cum-habitation site) or in different areas or in different regions (Table IV). A few of them have analogs in the Chalcolithic sites (Table IV). Out of the total of 584 there are as many as 59 graffiti peculiar to burials only. There are seven graffiti occurring more than 10 times (Table VI).

2. Graffiti from Habitation Sites :

More than 30 habitation sites have been excavated in South India since Sengamedu was excavated in 1956 and as a result of which hundreds of graffiti have been brought to surface till today. Of the sites excavated earlier, T. Narasipur alone gave 186 graffiti which exploded the myth of the funeral character of the graffiti in unmistakable terms and revealed the truth that the graffiti formed part of the potter's art and writing and they were scratched on the domestic utensils on a large scale. This was further strengthened by the excavations in the Lower Kaveri Valley since 1961. The twin sites Tirukkampuliyur and Alagarai located in the Kaveri Valley alone accounted for more than 360. On top of it the very recent excavations at Kodumanal yielded 342 graffiti, the largest number for a single site so far. The find of Brahmi inscribed sherds has been also on the increase since 1941 when Arikamedu supplied the first lot of such sherds[5]. Again Kodumanal tops the list with more than 100 sherds and that outnumbered the Salihundam lot[6]. The increase in the quantity of the graffiti and inscribed sherds does not go without significance. The significance has been explained in Chapter VIII. Therefore the graffiti from the habitation sites or levels had outnumbered those from the burials in the last two decades and this has set at rest the misconception about the funeral character of the graffiti.

Regarding the size, both small and large sized graffiti have been noticed. However, the tendency to reduce the size of the graffiti occurring alone or as ligatured graffiti could be noticed in a number of sites such as Tirukkampuliyur, Alagarai, Uraiyur, Kanchipuram, Karur, Korkai, Alagankulam, Vallam and Kodumanal. This tendency has been explicitly noticed in the case of ligatured graffiti. However, in the case of ligatured graffiti, the system of inter-positioning or inter-locking the bigger ones with the smaller ones is not uncommon. They are put together in many of the ligatured graffiti from the above mentioned sites (Figs. 33-34) The average length of the smaller graffiti ranges from 0.5 cms. to 2 cms. and of the bigger ones from 2 cms. to 6 cms in majority of cases. There are also a few examples measuring upto 10 cms. as seen at T.Narasipur, Kodumanal, Uraiyur etc.

They are scratched on the rim, neck, shoulder, belly and on the bottom of the vessels of various kinds such as bowl, dish, lid, flat bottomed vase, jar, etc. But the bulk of the graffiti are noticed on the neck or shoulder portions of the bowls and vases. This may be due to the fact that these are the two shapes which dominated the domestic vessel complex of the ancient people. Like burials, the same symbol is scratched on more than one side of the vessel. For instance a red ware vessel from Adiyamankottai bears three pronged arrow on two sides on the exterior (Plate I - 4).

The potteries which carry the graffiti include almost all the types such as the black-and-red ware, the black ware, the red slipped ware, (fine and coarse variety), the grey ware and the russet coated and painted ware. However, the red slipped ware and the black-and-red ware carry the bulk of the graffiti and the other ceramic traditions bear the minimum number of graffiti. This phenomenon has been noticed in almost all the sites excavated so far. The local imitations of the rouletted ware also rarely bear graffiti in sites like Uraiyur, Kodumanal, Salihundam etc.

The ligatured graffiti are predominantly noticed in sites like Tirukkampuliyur, Alagarai, Uraiyur, Vallam, Kodumanal, Karur, Korkai, Brahmagiri and T.Narasipur (Table III). In sites like Uraiyur, T.Narasipur, Kodumanal they constitute nearly 30% of the total graffiti. Korkai and Brahmagiri constitute even 50%.

In Tamil Nadu the graffiti have been found in most of the major sites associated with Brahmi inscribed sherds. The only exception is Tirukkampuliyur. Further, almost all Indo-Roman sites have yielded the graffiti. But in Karnataka, the majority of the graffiti yielding sites do not have these features. Brahmagiri, Maski and T. Narasipur could be cited as the best examples. But Andhra Pradesh is in somewhat midway position regarding the nature of the graffiti yielding sites. But Salihundam and Nagarjunakonda may fall in line with those of Tamil Nadu in this respect. These two sites are Buddhist in character in addition to their association with Roman pottery and inscribed potsherds.

But the over all survey of the occurrence and pattern of distribution indicates the pre-eminent position of the tradition of graffiti among the

cultural traits of the South Indian Iron age people. This feature may be the latest addition to the already existing distinguished characteristics such as the black-and-red ware tradition and iron.

The quality and quantity of graffiti unearthed from South India brings this region closer to the Pre-Harappan zones in Western Pakistan, Afghanisthan and Baluchistan which have yielded a wide range of potters' marks and graffiti in large quantity. The pattern of distribution and yield of pottery in these two regions separated by a vast gap of space and time deserves special attention in the field of ongoing researches relating to the decipherment of the Indus script.

The graffiti from the habitation sites or levels reveal a wide range of marks which include those from the burials also. But there are 171 symbols for which parallels have yet to be found in the burials (Table IV). This may be due to the exposure of vast tracts of land in the habitation sites. For instance, at Kodumanal alone more than 40 trenches covering an area of about 40 acres were excavated. (Fig.10) The quantum of graffiti yielded seems to have had a direct bearing on the extent of area excavated as well as the quantity of pottery recovered. This may not be possible in the case of burials as they have their own limitations in the yield of pottery. This explanation is subject to revision as future excavation of burials may tilt the balance. But the possibility of such revision may not be in the offing in the near future on account of the recent excavation of the burials at Mangadu and Thiruvakkarai[6a] which drew near blank in the yield of graffiti.

The graffiti have been prominently noticed in the pre-Brahmi levels in sites like Alagarai, Uraiyur, Kanchipuram, Karur, Korkai, Alagankulam, Arikamedu (1992 Excavation) Vallam and Kodumanal. Regarding Salihundam and Nagarjunakonda it cannot be precisely said whether the graffiti from these sites could be ascribed to the Pre-Brahmi levels for want of accurate stratigraphical context of the graffiti.

The graffiti have been also found in association with the inscribed sherds in all the above mentioned sites including Salihundam and Nagarjunakonda excepting at Alagarai. The quantity of graffiti obtained

from these levels show an increase and the tradition of graffiti has come to stay with the common people of these levels or these sites. At the same time as said earlier the Brahmi was chosen for writing on their utensils. Hitherto Brahmi was used in the cave inscriptions only.

The graffiti were in continuous use in the post Brahmi levels upto 3rd century A.D. as evidenced from sites like Kanchipuram, and Uraiyur. The Brahmi script was also not used after 3rd century A.D. in South India. This may be due to the reason of the emergence of Vatteluttu script in South India. However, it may be said that the tradition of graffiti was discontinued in the 3rd Century A.D. or slightly even later as they are said to have been obtained from the levels of the Early Historic period which lasted till 3rd Century A.D. or slightly later upto 5th Century A.D. at Perur.

3. Graffiti from Habitation-Cum-Burial Sites :

There are only a few habitation-cum-burial sites excavated in South India of which Brahmagiri, Nagarjunakonda, Kodumanal are the major sites which have a direct bearing on the study of graffiti. All the three sites have offered concrete evidence to establish the fact that the tradition of graffiti was a common feature of both burial and domestic pottery. Infact Kodumanal excavations have gone one step further to show that the tradition was more common to the domestic pottery than to the burial pottery as mentioned earlier (Table III). The grave goods comprising iron objects, black-and-red-ware, all black ware, red slipped and coarse red ware and the painted ware also form part of the cultural equipment of the people who lived near by the burials in these sites.

As mentioned earlier, the basic or main traits of the graffiti tradition are more or less similar to one another. However, the Kodumanal graffiti seen on the domestic pottery showing a wide range of highly stylised symbols and pictographs, point to the fact that man was on the threshhold of ushering a new era of self-confidence and intellectual activities. The wide range of graffiti again indicates that they were not intended to be associated with the burial pottery or to be merely associated with the

funerary character but were designed to express or denote some action or object or sequence of events connected with day-to-day life of the people. This hypothesis has been strengthened by the discovery of as many as 70 ligatured graffiti from this site alone. The significance of these ligatured graffiti has been explained in Chapter VII.

The graffiti from these sites have parallels in the various other pure habitation and burial sites. Therefore there is nothing special about the graffiti from the habitation-cum-burial sites and they show oneness with those from other parts of South India.

General Observation :

The survey and the data are furnished in Table IV; the data supplied reveals that nearly 10% of the prominent graffiti are common to Harappan and Post-Harappan Cultures[7]. Similarly 25% of the prominent graffiti are common to burial and habitation cultures of South India. This shows the possibility of the existence of contacts between the people of different cultures. The graffiti tradition was very familiar to the South Indian Iron age people.

REFERENCES

1. B.B. Lal, "Some aspects of the Archaeological evidence relating to the Indus Script" **Puratattva** No.7 (1974) PP.21-22.

2. **Ibid**. Figs. 1 & 2

3. A. Sundara, "On the Association of Graffiti with Megalithic Pottery" **Archaeological Congress and Seminar** - 1972 - (Ed) Udai Vir Singh.

4. T. Satyamurthy, **The Iron age in Kerala, A Report on Mangadu Excavation** - PP. 16-19.

5. K.A. Nilakanta Sastri "An inscribed Potsherd from Arikamedu", **J.M.U.** Vol. XIV, 1942, No.1, PP.1-5.

6. More than 100 Brahmi inscribed sherds were brought to light from various excavated trenches in Kodumanal belonging to both Iron age habitation and burials. Salihundam with 63 Brahmi inscribed sherds was thus out numbered in the yield of such sherds. Also see R. Subramanyam, **Salihundam, A Buddhist Site in Andhra Pradesh**, (1964), PP. 56-60, Figs. 15-16.

6. a) This site situated in South Arcot district near Pondicherry was excavated by the Department of Ancient History and Archaeology, University of Madras in 1986.

7. This comparison is based on the occurrence of Indus signs and graffiti (Non-Indus signs) on the Harappan ware only. Here the Indus signs on the seals are not considered for comparison. The comparative study of Indus signs and graffiti are given elsewhere in Chapter VIII.

V. PROTO-HISTORIC ROCK PAINTINGS AND IDENTIFICATION OF GRAFFITI

A. ROCK PAINTINGS:

The question whether there was any ideographic or pictographic script that preceeded the evolution of true writing in India as seen at ancient Egypt, Mesopotamia, China has not found a good answer. It is not due to the paucity of material evidence on the subject but due to the indeterminable nature of most of the material available with regard to their chronology and place in the evolution of writing in India.

After the discovery of cave paintings in Italy, France and Spain similar paintings in India caught the attention of scholars. Cave paintings are generally dated from the Chalcolithic to the Historic period in Indian Archaeology.

On the uneven sides of walls and roofs of many of these caves or rock shelters there are paintings of various ages. These rock paintings are found mostly in Rajasthan, Madhya Pradesh, Uttar Pradesh, West Bengal in North India and Kerala, Karnataka and Tamil Nadu in South India. Since these paintings have great antiquity, they are to be recognised as a source of archaeological information.

The Chalcolithic (Microlithic) paintings of North India are generally found in the sandstone areas (Figs. 11, 12). The size of the shelters vary from "fist size holes in the rocks to gigantic galleries more than a mile long and many metres high"[1] In south India, the rock paintings are located in the vicinity of Neolithic hill settlements and megalithic monuments. Most of the shelters here are formed by granite boulders. These paintings have been found not only in the shelters which can be regarded as dwellings but also located in places which can be reached by endangering life and limb.

In the Chalcolithic rock paintings, some times, the head of the dancer is shown in kidney shapes, triangles, squares etc. There will be a small

circle in front of the mouth of the singers. The snakes are rarely found. The bear with or without horn is a common feature. The fish is also located. In South Indian paintings also bear like animal, horse, ram,. fish and snake are not uncommon. It is also interesting to note that a bird like figure with human legs and huge beak is found among the paintings at Jaora (Madhya Pradesh)[2] which recalls the hawk-beaked human figures painted at Kilvalai in South Arcot District and Dharmapuri district. The Chalcolithic paintings were executed in red pigment, while the South Indian paintings mostly done in white pigment.

In Tamil Nadu alone more than 30 sites have been located as potential areas for the rock paintings. These paintings generally represent human figures with or without arms, animals with or without horns, birds, hunting, chasing scenes, horse riders, group fight, demi gods etc. The engravings show animals, motifs pecked in outline. Some of the rock paintings recently discovered in Tamil Nadu not only show the above mentioned theme but also contain painted letters or letter like signs. For instance, the paintings from Kilvalai depict signs (Pl. IV-1) (Figs. 13, A, B) similar to the Indus letters. It is interesting to note that the Kilvalai paintings show a hawk-beaked figure wearing a folded dhoti around its waist portion (Plate IV-2). This figure is exactly the same one that we notice in one of the paintings of Egyptian tombs. This figure is called Hawk-Beaked God or Horus in Egyptain mythology. As said earlier the rock paintings from Dharmapuri and Madhya Pradesh[3] also contain a similar figure but shown highly stylised. Kilvalai[4], Dharmapuri[5] and Madhya Pradesh painters possessed the knowledge of the Egyptain paintings. There are also numerous Indian graffiti similar to the Egyptian graffiti (Figs. 52-55). It further tends to prove that they seem to have had maintained some contacts with Egypt during the period.

The choronology of the paintings of Tamil Nadu may be fixed around the beginning of 1st Millennium B.C. or the Pre-Iron age.

As said earlier, we do not come aross painted letter like signs or letters on the pottery of South India so far, whereas they are abundantly seen on the Pre-Harappan, Late Harappan and Chalcolithic potteries and

many of them are analagous to the graffiti from the former sites as well as from South Indian Iron age sites. In this context the Kilvalai painted letters or letter like signs assume greater significance. However, these signs or letters exhibit a mixture of Indus letters and graffiti and this composition poses problems of their identification or reading (Fig.13). Attempts have been made to read them as Indus Signs[6] It is also worth mentioning that the signs are drawn at various places of the same wall. The repetition of the same set of signs needs further examination.

Besides Kilvalai, the rock paintings from Dharmapuri district constitute a class by themselves (Pl. V-1, 2) (Figs. 14, 15). There are numerous sites in the district which yielded paintings of both Pre-Iron age and early Iron age. These paintings contain numerous objects and scenes which certainly help us to trace the root and evolution of the most of the graffiti as well as Brahmi letters[7] as shown in Chapter VII.

However, the paintings from a place called Maharajakadai, Dharmapuri district (Fig.13-C) deserve special mention as they contain painted signs in two rows one below another. There are altogether 9 signs, of which 4, in the top line and 5 in the lower line. This is the largest inscription painted on a rock surface so far discovered and Kilvalai comes next to this only. The inscription contains a mixture of Indus letter like signs, Brahmi letter like signs and graffiti. But this has been identified as a Brahmi inscription by Natana Kasinathan[8]. But this identification does not sound well. The inscription should have been a part and parcel of a script that existed in the Pre-Brahmi period and it could well be called Proto-Brahmi script, the existence of which has been established in Chapter VIII. If these different categories of signs are put together, the reading becomes difficult. However an attempt has been made by the author to read them according to the formula devised by him in Chapter VII.

There are still a few more rock paintings located at Mallappadi (Dharmapuri District), Chennarayanapalli and Paiyampalli (North Arcot district) which contain one or two loose signs resembling the Proto-Brahmi characters. But much could not be said about them at the present state

of our knowledge. Very recently, Pre-and-Proto historic rock engravings with signs of the above said three categories have been discovered near Dindivanam in South Arcot district since the chapter has been concluded. A short Brahmi label has been also located in the group. The details of the characters of the signs await detailed examination[9].

Long ago, these rock paintings and engravings were considered as the casual hand work of the people who did not have any developed script for their language. Therefore, they did not contribute much to the study of the origin and evolution of writing in India. But the rock paintings from Tamil Nadu have thrown enough evidence to prove that they could contribute a lot for the study of the origin and evolution of writing in India, more particularly in South India[10].

A qualitatively new beginning in the study of paintings of Tamil Nadu has to be made for, hitherto only a few people had attempted to make good recordings of the paintings of which they talk so authoritatively. Sooner or later, these rock shelters will become as famous as the Ajantha Paintings. They should be accorded that place on the world map like the cave paintings of the Franco Canta-Brian region and the rock paintings in Tasili, Algeria. The foregoing summary of the rock paintings of Tamil Nadu will stimulate discussion between Archaeologists, Ethnologists and decipherers of Archaic scripts. The study of rock paintings in South India is still in an incipient stage. There is a vast collection of rock paintings. It is probably larger than any where in the world.

A systematic and scientific study of the rock paintings of Tamil Nadu would certainly throw a flood of light on the day to day life of the people as well as their writing system in the early or Pre-Iron age or Iron age or even post Harappan period in South India. For this, their chronology has to be firmly established first based on scientific methods. However, the Kilvalai and Dharmapuri paintings may be dated to the Pre-Iron age for the present.

Graffiti and Natural Forces:

The forces of Nature were considered as Gods and Goddesses in ancient period and worship was offered to them. They were respected and venerated. The ancient men believed that these forces alone could ensure them safe, settled and healthy life. Therefore, these forces were haunting their mind and as a result of which every action and thought centered around these forces. Further these forms and their characters formed part and parcel of their life.

Rock Paintings - The Moulder of Graffiti Tradition:

This desire to express his gratitude to these forces has been embedded in the Rock engravings and Paintings of the Proto-historic and historic periods. As said earlier the theme of the rock paintings mostly centred around these forces.

The Natural forces could be categorised into three viz. heavenly, atmospheric and earthly forces. The heavenly forces are represented by sun, moon, star, the atmospheric forces represented by cloud, thunder, rain and the earthly forces by land, mountain, sea, river, tree, plant etc. Even the Harappans and their successors the Vedic Aryans worshipped Nature and their manifestations mentioned earlier. Nature worship was the oldest of all the religion in the world and consumed various forms as centuries rolled.

As said earlier, in addition to these Natural forces, scenes representing hunting, combat and religious and magico-religious scenes, war scenes, sports and past time activities, dancing, music, village or city plans, buildings, weapons and objects of stone etc. are depicted in the rock paintings. A detailed discussion on the role of the rock paintings in the identification of many of the graffiti has been attempted in the following pages.

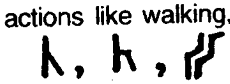
These paintings seem to have supplied ideas and forms to the Chalcolithic and South Indian Iron-age potters. But the supply was very

limited and confined to certain symbols and motifs representing human figures, animals, trees, plants motifs, sun, moon, star, swastika, fish, **damaru, Nandipada**, comb, ladder, field, structures like temple, house, village or town. Indus and Brahmi letter like signs are also included in such paintings as noticed at the Kilvalai and Maharajakadai. The paintings from Dharmapuri district are not only unique but relevent to the identification and meaning of certain graffiti as also to trace their original forms or root. The rock paintings of Madhya Pradesh, Rajasthan of Chalcolithic periods contain some figures and objects relevant to the identification of certain graffiti also.

First let us take up such of those graffiti which represent stylised human figures, animal figures, motifs and objects similar to those found in the rock paintings. Their identification is based on similar figures and objects mostly found in the paintings from Dharmapuri district. The graffiti are given below:

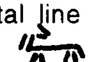
Stylised human figure with arms hanging, upturned, holding bow praying, shooting or throwing arrows or spears, walking, running and jumping (riding animals with or without horns). The figures indicated in brackets are however not exactly shown in graffiti. Instead they are shown symbolically and stylistically. For instance, the human figure throwing the arrow or spear is shown without the former. But the positioning the arrow or spear is almost an indication of the act of delivering the former. The scene is so much reduced on the pottery, probably for want of space. Therefore the arrows and spears shown either alone or in multiples in graffiti may be taken to represent the act of shooting or throwing the former.

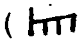
The human figure riding the animal is shown only in a few cases whereas the animal is reduced to have the lower portions only. Short vertical strokes hanging from a horizontal line are shown to indicate the animal. The human figure is also highly stylised. Human figures with horns or crowns are not unknown.

Similarly in graffiti, actions like walking, jumping and running are indicated by mere strokes like () respectively. This identification

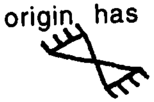
is based on similar representations in the rock paintings. These graffiti are included in the Indus and Brahmi script as letters (Figs. (3-9), (50-51). The female figure is shown with **damaru** shaped torso in the paintings to differentiate them from the male figures. Therefore the damaru shown as a graffiti may be taken to represent a female. The identification is justified when one looks into the ancient Tamil and Sanskrit literature wherein the young girls are described as having **damaru** shaped hip[11]

At the same time the **damaru** as a sacred instrument of percussion associated with the religious ceremonies or rituals of the tribals has also been seen in the rock paintings but there, it is shown with a tag (Figs.11 & 12). Therefore the damaru shown without a tag may have to be taken to represent the torso of a female. It is worth while to recall at this juncture a stone slab carrying an acrobatic scene reported from the **Harappan level at Banawali.** The acrobats are shown stylistically and they are females only. They are shown wearing bangles upto the elbow portions and these bangles are being arranged to take a **damaru** form. Hence the identification of the graffiti representing **damaru** as a female can be justified. Even today the woman folk of Rajasthan wear **damaru** shaped bangles. **Damaru** shape was also given to the stone water containers for the cattle. This is shown in a rock painting from Kadri, Orissa. Similarly, the damaru shaped wooden receptacle for thrashing paddy or rice into flakes was known as **Ural** in Tamil. **Ural** means strong object and the root is **uram** or **ura** meaning strong.

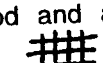
The graffiti representing stylised animal figures with or without horns are seen on a large number of Chalcolithic potsherds. But they are very rarely met with in the South Indian Iron age graffiti with the exception of Kodumanal. The presentation of the animals on the pottery suggest that they are mere eye copies of those found in the rock paintings. The bulk of the figures are again highly stylised and shown mutilated or reduced beyond recognition. However, the stylised forms of these animals shown in the rock paintings help us to identify such of those graffiti as animal figures. In most of the graffiti the animals are indicated by a straight horizontal line with 4 or 5 downward short strokes such as () () to indicate the legs and tail.

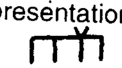
There are a few symbols looking like a chair with or without arms. These symbols are to be taken to stand for the animals. Therefore the chair symbol () is the symbolic representation of an animal. This is a best example to show how a graffiti has been evolved[12].

Yet another interesting graffiti very often repeated and reported from all over India is the so called fish symbol or sign. This sign has been also spotted in the rock paintings. The foot symbol in the rock paintings might have had its own meaning in the tribal society.

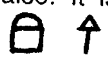
The foot symbol stands for Mount Kailas where Lord Siva is supposed to reside. In Ceylon a similar tradition existed long ago and the foot was called **Oli Pātham**. The Buddhists considered the Pātha of Buddha as sacred and offered worship to the same. The excavations at the Buddhist site Kaverippumpattinam yielded the Buddha Pātha in lime stone datable to 2nd Century A.D. A series of pair of foot has been carved out on the slopes of hillocks where Jain temples are located in the North Arcot district in Tamil Nadu. They belong to a period around 8th or 9th Century A.D. These foot prints may probably stand for the **Pāthā** of Jaina Tirthankarās. Therefore the foot symbol of rock paintings has to be considered as a sacred object representing the Invisible Forces and that could have inspired the potters of the subsequent periods to draw the symbols on the pottery to convey the same idea of the **Pātha Pūja** of either Siva, or Vishnu or Buddha or Jaina Mahavira of later times. Therefore the foot symbol in the graffiti tradition may have to be viewed in that angle. The **Oli Pādā**[13] of Ceylonese origin, has also its representation in the graffiti and is shown like ().

The planet like symbol also finds its place in the rock paintings. The same is also represented in one or two graffiti.

The railing is shown in the paintings in a different form like (). But in graffiti it is usually formed with vertical and horizontal bars as seen in the Vedic period and also one associated with the Buddhist structure like Stūpa ().

However, there is a representation of similar or variant form of the railing in a graffito form (). The identification of this type of graffiti as railing is possible because of the painted form.

The tree motifs are exactly the same both in the paintings and graffiti.

The temple structure shown in the paintings can be identified in the graffiti also. It is like () in the former and similar to graffiti (). It is also variously represented in the graffiti as (). These graffiti forms may be taken to stand for temples.

The village is also identified in the paintings like () and the same appear as graffiti and hence this sign or its variants like () may be identified as village or **Ūr.** The village is shown with sectors or quarters. The same symbol had been identified as town long ago by Heras[14].

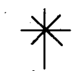
The graffiti resembling () is identified as the rope bridge as it is the same design represented in the paintings for a bridge.

The lamp with stem or shaft is shown in the paintings, but in graffiti the lamp without stem is alone represented. However, the analogy helps us to identify such of those graffiti () as lamps.

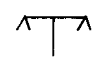
Further it may be interesting to note that the **Navagrahas** (the nine planets) with sun as their leader are represented in the paintings from Dharmapuri. The sun is shown with dots around its outer orbit. The dots are suggestive of the release of light and heat. Four of the other remaining eight planets are also having dotted circles on their outer orbits. The temple structure in the paintings is also encircled with dots to indicate that the temple is illuminated (Figs. 14,15). The Ujjain symbol may be taken for sun on this account (Pl. VII-3). It may be mentioned in this connection the association of dots and pellets with some of the symbols on the punch marked coins has been noticed as shown in Appendix I and (Figs.56-59).

Similarly based on the abovesaid analogy, such of those graffiti representing circles and ellipse may be identified as some planets as they were treated with great respect in the Proto-historic and Iron age periods.

The following are the graffiti identified with the help of the rock paintings of Madhya Pradesh and Rajasthan.

The multipronged arrow  may be identified as club as the same is shown along with bow and arrow in the paintings.

The jar symbol  has been given to the head portion of dancing figures in the paintings. It stands for the head and the jar symbol seems to have been evolved from the former. The same symbol is also used to denote a two horned head of an animal in the painting. It is called **mandai** in Tamil and **Kapalam** in Sanskrit and the earthern vessel in such shape is called **mandai** in Sangam Tamil works[15]. The jar symbol is the most common in the Indus Script. Therefore this sign may be given the value **mandai** or **man** and the root will be **ma.** It may also be given the value **talai** meaning head. Therefore the human figure with head indicated by a circle in the graffiti may be identified as **talai al** meaning Headman, Chieftain or God.

The Graffiti mark  may be identified as scaffolding as the same symbol has been depicted for a scaffolding.

The horned human figure is shown associated with rain in the paintings and therefore the graffiti of horned human figure may be identified as Rain God[16]. The rain in Tamil is called **Pey** and therefore and graffito may be given that Value, **Pey**. The word **Pēy** stands for ghost in Tamil. It seems to be the corrupt form of **Pey**. Therefore the horned human figure may be identified as Rain God and given the value **Pey and Pēy** of the later period.

The wheel and the Wheel with axle drawn by animals are portrayed in the paintings. It is primitive car and still in vogue in many parts of our country. It is popularly known as **Rēkla** and is a single seated fast

running cart which could be used in cart races and battle fields. The graffiti with the wheel and axle may also stand for such cart or a bullock cart as suggested earlier. The wheeled cart is also seen in the paintings from Tamil Nadu but looks later in date than the former.

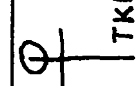
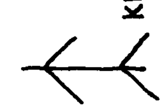
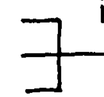
Therefore the following graffiti seem to have been copied or taken or adopted and adapted by the potters of the Proto-historic and Pre-Iron age periods.

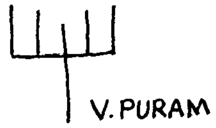
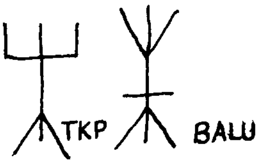
1. Human figures (Pl. VI, 1, 2, 3) in various actions with or without horn including acrobatic scenes - human figure riding animal.
2. Animal figures with or without horn (VI - 4, 5, 6)
3. Two and three pronged arrow or arrow head

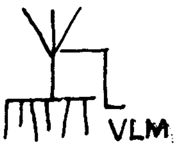
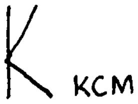
3(a) Multipronged arrow with handle

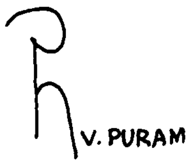
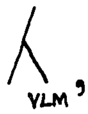
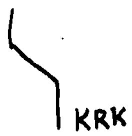
4. Spear or Trisula (Pl. VI-7)
5. Bow and arrow (Pl. VI-8)
6. Sun (Pl. VII-4)
7. Star (Pl. VII-4)
8. Swastika
9. Ladder
10. Scaffolding (Pl. VII-5)
11. Fish (Pl. VII-6)
12. Jar
13. Pātham (Human foot)
14. Railing
15. Rope or Rope Bridge
16. **Damaru** with tag
17. **Damaru** without tag (stands for female) or water container or receptacle for thrashing grain
18. Temple like structures

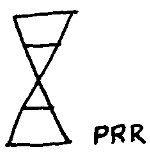
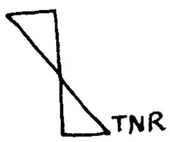
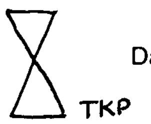
I. The following are the graffiti marks and their root derived. They seem to have stemmed out of the stylised human figures as shown below :- The frequency of occurrence of these graffiti are given in Table V.

Sl.No.	GRAFFITI	IDENTIFICATION	ROOT	DERIVATION
1.	2.	3.	4.	5.
1.	 TKP	Arms stretched	Human figure	Head and foot portions are missing
2.	 KDL	Arms hanging down	-do-	Head portion missing
3.	 TKP	Praying	-do-	Foot and head missing
4.	 KDL	Holding a shaft or bow with left arm	-do-	Head missing

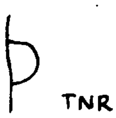
1.	2.	3.	4.	5.
5.		Holding up something with both arms	Human figure	Head and foot missing
6.		Both arms turned upwards in excitement	-do-	Head missing
7.		Left arm lifted	-do-	Head & foot missing
8.		Left arm hanging down	-do-	-do-

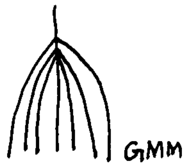
1.	2.	3.	4.	5.
9.		Face side turned	Human figure	Foot missing
10.		Seated on an animal	-do-	Seated but shown as if standing on an animal.
11.		Calling while walking or walking	-do-	Head missing
12.		As above but reverse	-do-	-do-

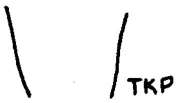
1.	2.	3.	4.	5.
13.		Stepping or jumping	Human figure	With head
14.	 , 	Walking	-do-	Without head
15.		Running	-do-	Body missing
16.		Running	-do-	Body & Head missing

1.	2.	3.	4.	5.
17.		Running	Human figure	Body & Head missing
18.		Torso of a female figure	Female figure	Fully stylised
19.		Inclined human body	Human figure	Highly stylised
20.	 	Damaru	-do-	-do-

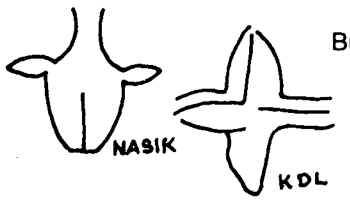
1.	2.	3.	4.	5.
21.		Forehead or face	Human figure	Highly stylised
22.		Eyes	-do-	-do-
23.		Nose	-do-	-do-
24.		Face	-do-	-do-

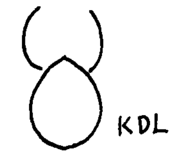
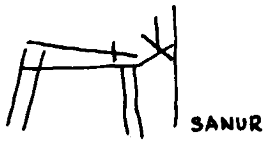
1.	2.	3.	4.	5.
25.		Lips or mouth	Human figure	Highly stylised
26.		Ear	-do-	-do-
27.		Head or Mandai	Head of a human being or a pair of horns of an animal	Shown upto neck Body missing
28.		Shoulder	Human figure highly stylised	Highly stylised

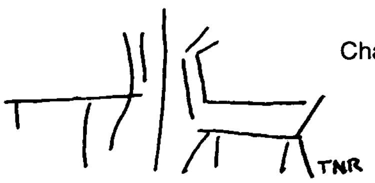
1.	2.	3.	4.	5.
29.		Thoracic bones	Human figure	Highly stylised
30.		Fore-arm	-do-	-do-
31.		-do-	-do-	-do-
32.		Torso	-do-	-do-

1.	2.	3.	4.	5.
33.		Thigh	Human figure	Highly stylised
34.		Knee	-do-	-do-
35.		Foot	-do-	-do-

II. The following graffiti have been derived from stylised animals or quadraped.

36.		Bull head	Animal figure	Highly Stylised

1.	2.	3.	4.	5.
37.		-do-	Animal figure	Highly Stylised
38.		Elephant trunk	-do-	-do-
39.		Animal-dog ?	-do-	Neck and legs are seen
40.		-do-	-do-	Highly stylised

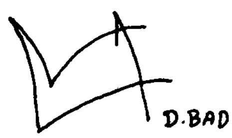
1.	2.	3.	4.	5.
41.		Animal - Deer	Animal figure	Head & legs shown
42.		Chair or throne	-do-	Stylised- Legs horns and tail

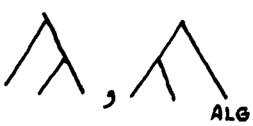
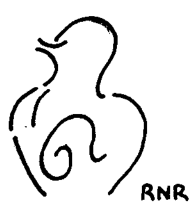
There are numerous other graffiti representing stylised animals and they have been now easily identified. As said earlier these graffiti are found in abundance in the Chalcolithic sites. Out of total of 548 Chalcolithic graffiti 50 are stylised animals. In South India Kodumanal tops the list in providing such graffiti. Among the graffiti No.42 and its variants have been found all over the world and reduced to that of an object resembling a chair or throne.

But it is the simple form of an animal i.e. the lower part of the animal alone being stylistically portrayed. This sign occurs initially as a stylised quadruped and later on as above in the Indus script. This is a good example to show the process of stylisation of Indus signs[17].

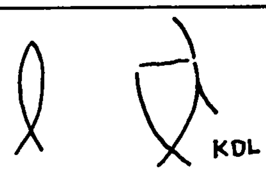
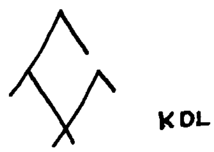
III. The bird figures have been also adopted for drawing graffiti. But only a part or parts of the birds has been drawn as graffiti. The similar technique had already been noticed in the graffiti representing a human figure or parts of human figures.

III. The following are the graffiti evolved from the bird figures.

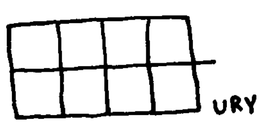
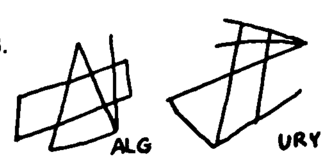
1.	2.	3.	4.	5.
43.		Flying bird	Bird figure	Highly stylised
44.		-do-	-do-	-do-
45.		Beak of a bird	-do-	-do-

1.	2.	3.	4.	5.
46.		Beak of a bird	Bird figure	Highly Stylised
47.		-do-	-do-	-do-
48.		Bird sitting	-do-	-do-

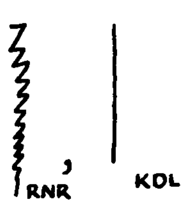
IV. The following are the graffiti evolved from fish figure.

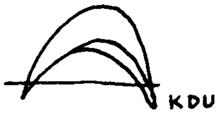
1.	2.	3.	4.	5.
49.		Fish	Fish	Stylised and gills missing
50.		-do-	-do-	Stylised
51.		-do-	-do-	-do-

V. Some diagrams representing games have been shown as graffiti. These games were played as Indoor and Outdoor games in ancient India particularly in Tamil Nadu. Even today these games are being played by the rural folk particularly by the urchins and shepherd boys. These games are not unknown to the urban people of our times in South India[18].

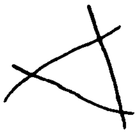
1.	2.	3.	4.	5.
52.		Ettukkattaattam (in Tamil)	Rural game	Dice
53.		Vettuppuliattam	-do-	-do-
54.		Chess like game	-do-	-do-

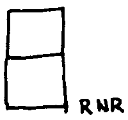
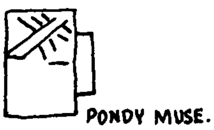
VI. The following are a few graffiti representing certain objects, objects of offering :

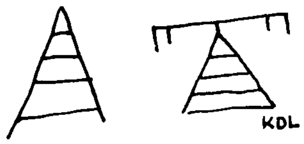
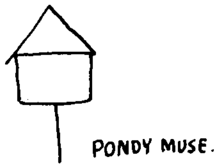
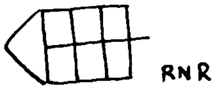
55.		Saw or shaft	Saw or shaft	Saw or shaft

1.	2.	3.	4.	5.
56.		Kavadi	Object of offering to Lord Muruga	Object of offering to Lord Muruga

VII. There are few graffiti which have been identified as structures of different kinds.

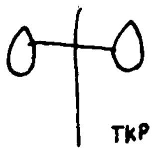
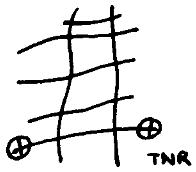
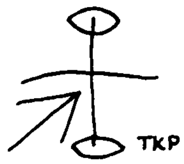
57.		Bamboo structure	Bamboo hut	Highly stylised
58.		-do-	-do-	-do-
59.		-do-	Bamboo hut or thatched hut	-do-

1.	2.	3.	4.	5.
60.		Wooden structure	Wooden structure	Highly stylised
61.		Hut	Hut	Highly stylised
62.		Storeyed structure	Structure	-do-
63.		-do-	-do-	-do-

1.	2.	3.	4.	5.
64.		Temple	Pyramid like structure	Temple
65.		-do-	-do-	-do-
66.		Temple structure	-do-	-do-

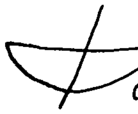
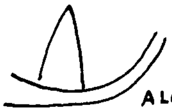
VIII. There are certain graffiti portraying the mode of transportation and they are as follows :

67.		Wheel	Wheel	Wheel

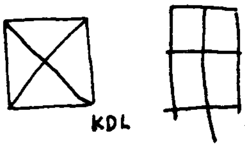
1.	2.	3.	4.	5.
68.		Central portion of a wheeled cart	Bullock cart	Bullock cart
69.		Cart with a wheel	Bullock cart	Bullock cart
70.		Central portion of a wheeled cart with axle - the arrow showing the direction	-do-	-do-

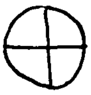
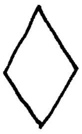
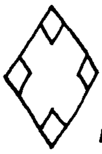
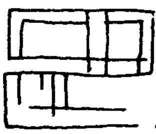
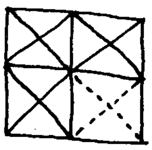
IX. There are also graffiti representing boats shown below :

71.		Katamaran	Katamaran	Boat

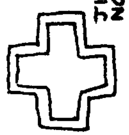
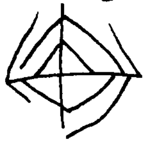
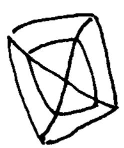
1.	2.	3.	4.	5.
72.		Boat	Odam	Boat
73.		Boat or ship	Boat or ship	Boat or ship
74.				

X. There are also graffiti representing the plan of a village or town or its division into Sectors or Quarters. They are as follows :

75.		Village with square or rectangular plan - with four Sectors	Ur	Village layout

1.	2.	3.	4.	5.
76.		Circle with four sectors	Ur	Village layout
77.		Village with parallelogram or rhombus plan	Town or Village	Town or Village
78.		Town or Village with sectors	-do-	-do-
79.		Town with sectors	-do-	-do-
80.		-do-	-do-	-do-

XI. The following are the graffiti taken to represent Tank or water trough.

1.	2.	3.	4.	5.
81.	 PRR	Rectangular tank or water trough	Tank	Tank
82.	 JIVANI NOTIMBO	Tank	Tank	Tank
83.	 O.BAD	Stepped tank	Tank	Tank
84.	 D.BAD	-do-	Tank	Tank

Besides the above mentioned graffiti there are many graffiti yet to be satisfactorily identified. Their identification awaits further examination as well as discovery of rock paintings, engravings and painted motifs on pottery.

Yet another feature of the majority of the rock paintings is the depiction of the dog and horse predominantly and frequently in the scenes associated with hunting or combat. Generally men will be shown riding the horse or seated on the horse while combating. But the Dharmapuri paintings portray an altogether different picture of the animal. The animals are, not the horses usually shown but they are rams carrying men in the battle scenes. They are shown with short legs, narrow neck and head. Horned animals are also shown which may be identified as horned bull. Therefore the absence of horses in the Dharmapuri paintings suggest that they belong to the later phase of the Proto-historic period or the Pre-Iron age prior to the introduction of horses and coeval with the Chalcolithic paintings of Madhya Pradesh and Rajasthan. The bull and ram were used in the battle field as well as for carrying loads. The highly stylised forms of these animals particularly ram are reproduced after further reduction or mutilation of their forms as graffiti in the Chalcolithic and Iron age periods. Sometimes only two leg portions and horn or even part of the leg and horn appear as graffiti ie.  As said earlier such graffiti look like chairs or thrones. Therefore the root of the graffiti is the animal figure. But for the Dharmapuri paintings it is hardly possible to identify such graffiti as well as those mentioned earlier. There are a few Indus seals which show the stages of stylisation of the animal figure to that of a chair.

It is worthwhile to recall here that the stylised ram has been adopted as a sign in the Indus script. Therefore the features like the absence of horse, the use of ram are common to both the Dharmapuri paintings and the Indus script this may provide valuable clues or loose links to connect these two cultures. The graffiti capable of providing such clues have been described earlier in this Chapter. Therefore the vast gap in space between Dharmapuri and Indus Valley did not in any way prevent the people of these regions from interacting with one another. This fact should

be taken note of while attempting to decipher the Indus script or understanding the true nature of the Indus civilisation as well as to identify and read the graffiti also. This methodology has been adopted to derive the root of many of the graffiti and apply phonetic values to such of those graffiti in Chapter VII. As said earlier the Kilvalai and Maharaja Kadai paintings contain rows of letter like signs (Plate IV-1) resembling the Indus signs. Here again one could trace back these signs through the Pre-Iron age to the Harappan times. As said earlier the antiquity of these paintings is further indicated by the Hawk-Beaked God of the Egyptian origin (Pl. IV-2) present in the painted scenes of Kilvalai and sites of the Dharmapuri district. Therefore the motifs and signs found in these paintings may have some bearing to the motifs as well as the signs of the Indus seals.

However, the scribes or potters seem to have drawn upon the natural and cultural forms besides forms of animate and inanimate nature which were dearer to them in their day to day life, for the graffiti tradition. But, of these, why only certain select forms were chosen for display on the pottery vessels and not all the locally familiar objects were symbolised? On the other hand in the Egyptian system hundreds of locally familiar objects or forms were symbolised.

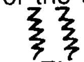
The similarity between the rock paintings of Tamil Nadu and the graffiti demonstrate to an unknown degree, the presence of the South Indian genesis for some aspects of the development of Brāhmi script also. This has been demonstrated in Chapter VIII.

There are also certain graffiti which bear close resemblance to some of the letters or signs of the archaic scripts of the ancient world (Figs. 17-24).

Similarly there are a few Indian graffiti which have parallels in the graffiti found at Egypt and other countries (Figs. 52-55).

It is not known whether the similarity is accidental or due to migration of people or ideas. However, the Hawk-beak figure clearly points to the contacts between ancient Egypt (Pre-Dynastic Period) and India.

Similarly the interaction between the people of these countries could have alone been responsible for the appearance of the Egyptian graffiti or and Hieroglyphs in India.

Regarding the other countries nothing can precisely be suggested at this juncture. As has been pointed out earlier the same sign or symbol which has been adopted in the various countries may have different meaning and phonetic value based on the usage of language in the respective countries. However, it shows the familiarity of the ancient people for the utility of the graffiti symbols. For instance,  which means water in Proto-Sumerian and also in the Proto-Elamite but when placed horizontally  it also means the same in archaic Egyptian. The same symbol is given the same value in India based on the analogy. Examples of such common usage across the ancient world generally retain the underlined meaning whether absolute or derived but their phonetic equivalents differ.

B. MEANING OF GRAFFITI :

As said earlier it is very difficult to understand the meaning of graffiti. Scholars have expressed different theories regarding their identification and interpretation. Ever since the discovery of the Indus script which consisted of as many as 419 signs[19] occurring on seals had drawn the attention of the Scholars from various countries to ponder over their decipherment, the occurrence of graffiti symbols has become a non-event and they were being brushed aside as having no meaning at all. Even the ligatured graffiti found at Savanadurga and Sanur (Pl. XII-1, 2) as early as 1881 and 1952 respectively were ignored by scholars under the pretext that they have no relevance to the writing system of our ancient people at all. However, S.R. Rao[20] and a few others who were engaged themselves seriously in the decipherment of the Indus script have taken note of the relevance of the Sanur graffiti to the writing system of our ancestors. Mahadevan has expressed his own reservations about identifying the Sanur graffiti as signs or letters with any definite phonetic value. At the same time he emphasised the urgent need to have a concordance of graffiti from all over India which could alone provide

some clues as to the nature of the composition of the signs of the Indus script and their probable source of origin, evolution and meaning[21].

More than 84 graffiti have been identified by the present author and there are still 429 to be identified[22]. As said earlier their identification poses problems as they have been highly stylised. If a particular graffiti is identified then, it may be taken to mean the object it represents, or the object itself may stand for a word meaning something else. In the latter case it becomes word sign by itself.

As said earlier, the graffiti marks are of various kinds, representing religious and secular objects, flora and fauna, artefacts, utensils etc. Various theories regarding their identification have been put forward by scholars ever since Branfill and Yazdani reported them. It is worthwhile here to recall the observation of these scholars regarding the identification of the graffiti. Recently S. R. Rao has made some feeble attempts to link the Sanur graffiti with Indus script. It may now be examined the validity of the theories of the abovementioned scholars one by one in the light of comprehensive data collected by the present author.

1. Foote's suggestion that the graffiti represent ownership marks may be accepted for the following reasons:

Hundreds of graffiti found in one particular site may be considered as owners's marks or names since the inhabitants of the place in the same site would have borne different names. The duplication of the same marks in the same sites further indicates that more than one owner could have adopted the same mark or name as observed in our society today. Similar marks occurring outside the site lying near and far away may be explained in this way. The Kodumanal inscribed sherd from a burial bearing the name of a person lends proof to this view. Future excavations of more burials in potential sites may offer additional proof to establish this hypothesis.

2. Yazdani surmised that they represent written characters like the Egyptians theoretic script and used to express ideas. In a nut shell his theory defines the graffiti as ideograph. His attempt to derive the Brahmi

script from the graffiti seems to be meaningful and his views have been pursued in the present work with more vigour and several hundreds of graffiti have been brought to surface since he offered his explanation. The first part of his theory has been the basis for the identification of numerous graffiti by the present author and this has been dealt with in great detail at the end of the chapter VIII that there are nearly 72 graffiti which bear close resemblance to the Brahmi letters such as a, a, e, u, o, etc. This points to the fact that the scribes of the Brahmi script would have derived most of the letter signs from the graffiti of the Pre-Brahmi period.

3. Hunt's view that the graffiti stand for tribal mark does not sound well, when we take into account, the large number of graffiti made available till today. The identification of as many as 513 prominent and distinct graffiti all over India covering a period of nearly 3000 years from the Pre-Harappan to the early centuries of the Christian era upto 3rd century A.D. negatives the hypothesis of Hunt. But no one can imagine the existence of 513 (or even little more) tribes in ancient India. The statistical data of graffiti from an individual site like Tirukkampuliyur or Alagarai or Kodumanal indicates that there are as many as 30 graffiti respectively peculiar to the respective sites cited above. These graffiti are not represented in other sites. Even for the sake of argument, if Hunt's theory is accepted, then it almost amounts to the acceptance of the existence of more than 30 tribes in Kodumanal alone. This is neither acceptable nor feasible.

However, the application of Hunt's hypothesis to identify certain single graffiti representing certain animate and inanimate objects may yield some meaningful results. In other words his hypothesis may be enlarged to include all the graffiti under the category as Totems. But this is not acceptable as numerous ligatured graffiti have surfaced till recently.

4. Similarity the theory that the graffiti stand for potters' marks can be rejected straightly as there may not be as many as potters in a single valley site Tirukkampuliyur or any other place.

5. Thapar who could not agree with the suggestion that they were being potters' marks or owners' marks or tribal owners' marks pleads for a closer observation in future excavations to term a substantive hypothesis. Thapar has not given any satisfactory explanation for the rejection of the abovementioned theories. However it is sad to note that his plea for a closer observation of the graffiti in future excavation went unnoticed and as a result of which the event of the occurrence of graffiti in the various excavations conducted since Thapar's plea had not received the attention it deserved. However, Lal has picked up the thread and attempted to focus the point that the tradition of graffiti has been a common feature in the Harappan, Chalcolithic and Iron age cultures. He has also associated himself with the suggestion that the graffiti may represent the potter as well as the owner. But at the same time he did not hesitate to caution the scholars that nothing definite could be said at that juncture.

6. There are a few individual graffiti occurring alone or in association with other signs which have been identified by the present author as "Trade Marks" or "Marks of identification of Merchants" or Traders' Guilds or Corporations". There are not more than half a dozen such graffiti collected from the excavations in Tamil Nadu.

They are as follows :

1. Four armed star - Fig. 16-D, E ; Pl. XII - 4.
2. A series of short vertical parallel strokes standing for numerals which could denote a merchants' or Traders' Guild. (Pl. XII - 3)
3. Tree in railing. Fig. 16-C; Pl. XII - 5.
4. Bull head (Taurine) or Brahmi 'ma' like sign alone or in a group of three Fig.16-F; Pl. XII-6.

The symbols corresponding to the above graffiti 1 and 2 have been noticed on a pair of clay seals from Tirukkampuliyur (Pl. XII 3A). The third one appears on the pottery seal from Alagankulam (Pl. XII-5) and the last one constituting ligatured graffiti with three such symbols from

Kodumanal (Pl. XII-6). It appears to have been stamped on the vessel before firing by a seal bearing the negative impression of the symbols. Even the Alagankulam specimen also appears to be a seal impression, rather than a seal. It requires further examination.

It is interesting to note there are few references in Sangam works to the use of Clay seals by the rulers as well as by the Merchant communication. According to **Silappadikaram**, the export articles were stamped with clay seals of the respective merchants' guilds at Poompuhar, the port of the Sangam Cholas. At times they bore the names of the merchants also[23].

Another Sangam work **Pattinappalai** refers to the royal seal with tiger of the cholas and how the import and export articles were duly stamped at the harbour[24]. The clay tablets bearing the royal seal are frequently referred to in **Silappadikaram.** The letters or the parcels sent from the royal court were sealed with royal emblem. For this purpose, a piece of wet clay will be fastened on the parcel or the outer cover containing a letters and the royal seal was affixed on the clay piece. This sort of sealed letter are referred to as **maṉṉuḍai muḍangal** in Silappadikaram[25]. (ie. **maṉṉudai** meaning clay piece and **muḍangal** meaning letter in Tamil). These seals bore the name of the ruler, his emblem and the numeral indicating the weight of the parcel.

Therefore the corresponding graffiti for these symbols could be identified as marks of Merchants' or Traders' guild. The seal No.2 above from Tirukkampuliyur bears a series of 80 short strokes in five rows and it may be read as **eṇapthinmar. Eṇpathinmar** may also stand for a Merchants' guild and similar terms such as **inurūvar, Elāyiramar** etc. denoting Merchants' guilds or Corporations are recorded in the early nd medieval inscriptions of South India. These graffiti marks appear as a class by themselves exhibiting their association with the economic transactions done by certain Merchants' guilds of Tamil Nadu[26].

Though it has been already ruled out that the entire range of graffiti as a whole cannot be considered as marks of Merchants' or Traders' guild, the above mentioned graffiti may be treated as exceptions.

7. T.V. Mahalingam while tracing the origin of writing in India underlined the importance of graffiti as follows:

"Pictographs or picture writing in the form of graffiti marks found on the pottery of the Chalcolithic and Megalithic cultures of India, open a new field for intensive study and research".

The collection of more than 350 graffiti from Tirukkampuliyur and Alagarai alone in the Lower Kaveri Valley excavations had probably tempted him to make this observation. The discovery of a large number of ligatured graffiti ever since Tirukkampuliyur and Alagarai excavations make the observations of T.V. Mahalingam worth considering.

S.R. Rao's attempt to link the Sanur Graffiti with Indus script may fall in line with Mahalingam's view. But Rao has not exploited the full use of the ligatured graffiti brought to light till recently. It may probably be due to the non-availability of such ligatured graffiti at his disposal at the time of pronouncement of his hypothesis to explode the myth of the Indus script. The present work will certainly provide ammunition to scholars like S.R. Rao for the furtherance of their investigation in this direction.

In the light of the above discussion, apart from being the owners' marks or marks of personal identification, the graffiti are to be considered as documents hiding the socio-economic-religious and cultural aspects of the ancient people. They have to be identified or interpreted in relation to their environmental conditions and day to-day life. We have earlier demonstrated how the figures, motifs and objects of the Dharmapuri paintings would have had a profound impact on the shaping of the graffiti marks. Some of this stylised graffiti formed by means of a few strokes have now been easily identified and interpreted. It has already been discussed how the root of these marks may be traced back to the rock paintings of the pre-Iron age or Iron age.

REFERENCES

1. Neumayer, **Pre Historic Rock Paintings of India**, PP. 6-8
2. **Ibid.**, Fig. 65
3. **Ibid.**
4. See Pl. V-2.
5. K. Rajan, "Archaeology of Dharmapuri District" **Man in Environment**, Figs. 8 - 16.
6. R. Mathivanan, **Sindhu Veli Ezhutthin Thiravu**, (Tamil) PP. 54-55
7. Figs. 14, 15 of this Volume.
8. Natana Kasinathan, **Kalleluthukkalai** (Tamil) **Appendix I.**
9. These rock engravings are discovered by Dr. A. Dasarathan and Pulavar B. Kannaiyan of the Institute of Asian studies, Chennai See also (14-10-92) **Dinamani**, (Tamil Daily) Madras Edn.
10. The author is able to identify a handful of graffiti with the help of these paintings and these are dealt separately in this chapter.
11. In ancient Tamil Works the word **tuḍi Iḍaiyāḷ, Uḍukkai Iḍaiyāl,** means a narrow waisted lady.
12. B.M. Pande, "On the Origin of Harappan Sign  **Puratattva** No.7, PP. 25-27, Figs. 1, 2.
13. **Abstracts of Papers, II International Conference, Seminar of Tamil Studies**, Madras - 1968.
14. Rev. H. Heras, **Studies in Proto Indo Mediterranean Culture**, P. 73.

15. **Ahanānūru** : 105 : 5, **Puranānūru**, 125.3, 352: 1, 386:5 **Kuruntogai** : 169:4, I. Mahadevan, **The Indus Script, Text Concordance and Tables - P.791.**

16. Neumayer, **Op. Cit.**, Fig. 60, PP. 99.

17. B.M. Pande, **Op. Cit.**, PP. 25-27. This symbol is called **Nārkāli**, in Tamil means four legged chair.

18. I. Mahadevan, identifies the symbols 52, 54 and 75 as place symbols. See I. Mahadevan, **Op. Cit.** P. 24.

18. a) See Post Script for detailed notes on these engravings.

19. I. Mahadevan in his work - classifies 419 signs of Indus script, some of them with graphic variants.

20. S.R. Rao, **The Decipherment of the Indus script, P. 211**

21. I. Mahadevan, **Op. Cit.**

22. See Chapter VII for details of identification and decipherment of more graffiti marks.

23. **Silappadikaram**, 26

24. **Pattinappalai**, 133-136

25. **Silappadikaram**, 13; 76.

26. A silver seal from Karur with Brahmi script of Ist Century B.C. and three symbols such as Taurine, Srivatsa and Crescent moon has been recently discovered (Fig. 16-b) All the three symbols occur as graffiti and therefore as said earlier the crescent moon and Srivatsa may be identified as marks of merchant guilds.

❖ ❖ ❖ ❖ ❖

VI. ORIGIN AND EVOLUTION OF WRITING ARCHAIC SCRIPTS IN ASIA EUROPE AND INDIA

A. ARCHAIC SCRIPTS :

There are more than 3000 Languages in the world. But the number of existed and existing scripts are very less. Among the archaic scripts the following can be hand picked for their antiquity and character.

1.	Sumerian	...	...	3000 B.C. - 1500 B.C.
2.	Egyptian	...	...	-do-
3.	Cretan	...	...	-do-
4.	Proto-Elamite	...	...	-do-
5.	Assyrians and Hittites	...	...	2800 B.C. - 1200 B.C.
	Indus	...	...	2650 B.C. - 1800 B.C.
6.	Lycia	...	...	1500 B.C. - 1000 B.C.
7.	Carian	...	...	-do-
8.	Cypriote	...	...	-do-
9.	Cannanite	...	...	1200 B.C. - 900 B.C.
10.	Early Chinese Writing	...	...	1500 B.C. onwards
11.	Phoenician	...	...	700 B.C.
12.	Etruscan	...	...	1000 B.C.
13.	Sinatic	...	...	700 B.C.
14.	Archaic Greek	...	...	700 B.C.
15.	Hebrew	...	...	400 B.C. - 200 B.C.
16.	Ogam	...	...	-do-

17. Kharoshthi ... ... -do-

18. Brahmi ... ... 200 B.C. - 200 A.D.

These are the archaic scripts from which most of the existing scripts derived. There are evidences to prove that most of these scripts developed from pictographs or ideographs or hieroglyphs. The various stages of their evolution have been explained by scholars all over the world doing research in the field of writing systems.

Some of the letters or signs of these ancient scripts do resemble the graffiti on Indian pottery. Such of those graffiti morphologically resembling the letters in the scripts are given in the table (Figs. 17-24). The signs which are graphic variants to the letters are also given. But their phonetic value is not taken into account. However, the phonetic value of such letters may be useful to identify or understand the meaning oı the graffiti in a limited sense. Pictography is the most natural and direct means of communication. It must have originated independently among different peoples and hence there is no single system of pictography. Therefore it is usually comparatively easy for any one to get a meaning out of a pictograph but is of quite a different matter whether that was the meaning which the inscriber intended to convey.

Writing as we have it now was not the invention of a single day nor of a single man. It has existed longer within the womb of society than out of it.

The earliest form of writing was pictograph. The pictographs are only recorded gestures. Man has an inborn property for graphic expression and this potential instinct to draw or write is man's biological inheritance which he shares with members of the pongidae. Pictographs represent objects of animate and inanimate nature; pictography is the boundary between writing and art.

Picture writing even in its elementary stage is more than a picture. It is utilitarian beginning of writing language. It conveys a sequence of events or idea or notion. The Pre and Proto-historic rock engravings and

paintings are good examples for the definition. It is an improved version of the earlier form of writing i.e. embryo writing. It was useful for perpetuating or translating thought.

Speech is perishable but when translated into writing it gains permanence defying the commanding hand of time.

One stage of writing is marked by the use of totem signs by Pre-historic people. The nearest approach to writing is made by the use of totems or autographs. Another factor that influenced the evolution of wrilting was the use of private ownership marks.

There are several stages through which alphabet writing has passed. They are as follows:

1. "Pictographs" Pictures of actual representation of objects.

2.a) "Ideograms" - pictorial symbols used to suggest objects or abstract ideas.

b) "Phonograms" - graphic symbols of sounds; they have usually arisen out of conventionalised ideograms which has been taken to represent sound, instead of objects.

3. Verbal signs representing entire words

4. Syllabic signs which stand for articulation of which words are composed.

5. Alphabetic signs or letters.

Let us now examine briefly the origin and evolution of writing in countries which are considered to be the cradles of civilisation.

1. SUMERIAN WRITING:

Sumerian writing is one of the oldest writing systems in the world. Cuneiform letters prevailed in Sumer Kingdom and were used by

Sumerians from 3100 B.C. to 2000 B.C.[1] Sumerian writing survives on numerous clay tablets. Cuneiform was the multi natural script of ancient times. It is called so because of wedge like character of the strokes of the writing. They are incised on soft clay, subsequently based with a blunt pointed instrument or stylus. Cuneiform system when simplified by Assyrians totalled about 570 signs. The epigraphical evidences are reported from the excavations at Uruk in the Lower Iraq where 85 percent of the texts refer to economic tablets and 15 percent lexical lists. Most of the texts are economic texts. They were part of the book keeping system. They were used for managing large volume of information more than the human memory. Around 4000 clay tablets have been found at the oldest written documents of the ancient Near East[2]. At the time when they surfaced it was recognised that the individual signs of this script were the ancestors of the signs of the later Cuneiform writing. In this system numerical information is full but non-numbering numerical information is brief. It is interesting to note that different numerical values for the same sign have been assigned. This factor has to be borne in mind while identifying the graffiti and signs of the Indus script.

2. EGYPTIAN WRITING:

The Egyptians took the idea of writing from their Mesopotamian counterparts[3]. The corpus of archaic inscriptions from Egypt like cylinder seals, Jar labels, funerary monuments and sherds have been published by Kaplony[4] (1963 and 1966). They are dated to 3000 B.C., little later they used papyrus for writing. They are documented by Emery[5] (1938-41) and Cemy[6] (1952).

The cultural history of the ancient Egypt is markedly different from that of the contemporary Mesopotamia and the adoption of the idea of writing by the Egyptians conforms to a general pattern, which shows the tendency of Egypt to adopt and perfect inventions made elsewhere in the Near East. Theories of conquering "Dynastic race", which gave rise to the Egyptian civilisation, are unnecessary.Egyptian hieroglyphs show many of the signs of deliberate invention probably in association with the royal court, appeared suddenly and developed rapidly. They were so well suited

to the underlying languages. One of the Afro-Asiatic groups, that their creation seems to be deliberate uniconsonantal or alphabetic signs a striking and unique feature of the system, which was essentially completed by 3000 B.C.[7]

There are three stages in the Egyptian system of writing, they are:

1. **Representative or imitative signs**

2. **Symbolic signs**

   a) When it became necessary to portray actions, motives and sentiments scribe used - Synecdoche; using a significant part, instead of the whole of the figure.

   b) Meonymy - portraying cause for effect **Vice-versa** employing instrument to represent the effect produced such as the sun, to denote day or time, the moon to a month; the pictures of various instruments were used in writing to indicate the act of writing etc. and

   c) Metaphor - reoresenting an idea by resemblance, real or fancied to the properties of some object e g. book to represent knowledge, eye - judgement.

3. **Phonetic signs** : Syllabic or alphabetic phoneticism - signs representing words.

Date :

The Egyptian hieroglyphs may go back to the first dynasty period 4777 B.C. according to Flinders Petrie. It is easy to draw something resembling man than to agree on a sign to represent the word man. Therefore pictographs or ideographs could naturally precede phonetic symbols. But the earlier systems of writing would not be purely pictographic or ideographic but mixed.

3. CRETE AND CRETAN LINEAR WRITING :[8]

There are a few logograms similar to Indian graffiti. The three Cretan Proto-historic writing systems are known conveniently as "Cretan Hieroglyphys," 'Linear A' inscriptions and 'Linear B' inscriptions.

So far the Cretan Hieroglyphs have been found only in Crete and appeared for the last time around 1500 B.C.

The 'Linear A' inscriptions have been noticed from the Aegean Island (Key, Kythera, Kelos and Thera) and from the Greek Mainland, in Southern Laconia, in the form of a two-sign inscription; they appeared for the last time at about 1450 B.C.

The third one namely "Linear B" Inscriptions have been found almost exclusively in the Mycenaean palaces of Knossos in Crete, Pylos, Mycenae, Thebes and Tiryns on the Mainland. This appeared for the last time around 1200 B.C.

In general all the three systems served to record economic activities. Unbaked clay was used for all the three writing systems. While the scholars are successful in deciphering the "Linear B", inscriptions and the "Linear A" inscriptions, the Cretan Hieroglyphs are yet to be deciphered.

Linear "B" was deciphered just because there was sufficient material of more than 30,000 signs on over 2000 documents. But for "Linear A" there exists at present only 7500 signs on less than 1500 documents, while Cretan Hieroglyphs offer only some 1500 signs on less than 500 documents.

Cretan Hieroglyphs have been found on clay bars, sealings, labels etc. They are incised and painted on pottery, Linear 'A' and 'B' inscriptions are found on clay tablets, stone, pottery, metal etc. They are also incised and painted. The unbaked clay was used. The perishable material of natural and vegetable origin disappeared through simple decay. There are a good number of signs in Linear B inscriptions which draw parallels from our Indian graffiti. They are shown in (Fig. 17-24).

The parallels do suggest some contacts between the people of these two countries. Migration of people or ideas could have been responsible for this similarity of signs.

The paucity of the documentary evidence renders any conclusion problematical, sometimes impossible. The Cretan writing system goes back to the second Millennium B.C. We must hope for an appreciable increase in the quality and quantity of evidence available. But in the meantime the only realistic approach is to exploit to the full all that we have at our disposal.

4. PROTO-ELAMITE SCRIPT - (IRAN) :

Between the second half of the fourth Millennium B.C. and the end of the third, three writing systems succeeded one after another at Susa and on the Iranian Plateau. Around 3200 B.C. clay bullae and tablets attested the use of an exclusively numerical notation at a time when relations between Susa and Mesopotamia were extremely cordial. From around 3100 until about 2700 B.C. Proto-Elamite writing probably invented on the Plateau, was employed for economic purposes. At first ideographic, this script as yet undeciphered became increasingly syllabic like the Linear Elamite of more than half millennium later. At the end of the third millennium, at a time when the scribe of Susa had already adopted the Mesopotomia, Cuneiform characters, and Elamite invader Puzur - Insusinak imposed the Linear script derived from Proto-Elamite signs. Despite recent efforts, in particular, those of W. Hinz and P. Meriggi these Linear inscriptions remain largely incomprehensible. Only the discovery of new inscriptions may enable further progress in their decipherment[9]. The term Proto-Elamite covers three seperate categories which should be distinguished from one another; they are as follows :

1. Bullae and Numerical Tablets which can be seen as the first writing system.
2. Proto-Elamite tablets usually economic texts.
3. Linear Elamite of which the main texts are royal inscriptions.

These three systems succeeded each other in time but more than a millenium separated the invention of the numerical system and the beginnings of the use of Linear Elamite.

Epigraphical evidence for notation numeral have been recovered from Susa, T. Mish, Tgodin, for Proto-Elamite from Susa, T. Sialk Ansan, T.Yahya, Shashr, T. Sokhte Ghazir, Shahad etc. and for Linear Elamite from Susa and Shandad.

5. (ASSYRIANS AND HITTITES) - ANATOLIA.[10]

Writing first appeared in Anatolia as a clear cultural import from 2800 - 1800 B.C. Assyrian merchant colonies were established on the Plateau at the western end of a trade route running from the city of Assur on the Tigris across upper Mesopotamia and through the Taurus Mountains. Details of the trade were recorded on clay tablets written in Cuneiform script and Assyrian language and the merchant colonies and business houses amassed extensive archives extending over several generations.

The important sites from where the epigraphical evidence came are Kultepe (Ancient Kanesh) near Kayseri in the East Central Anatolia from where more than 20,000 clay tablets have been excavated. Tablets and sealings though in small numbers recovered from Bogazkoy (ancient Battusa), Alisar (ancient Ankuwa) and[11] Acemhuyuk[12].

The excavations at Bogazkoy have not only revealed great Cyclopean fortifications, citadels, great temple of Storm God etc. but also over 10,000 clay tablets inscribed in Cuneiform script in number of languages, principally Hittite itself and Akkadian (Babylonian)[12].

One of the most remarkable features is the Hittite language itself is it is an Indo-European language. It is one of the great families which includes Greek, Latin and Sanskrit (with their modern descendents), the Germanic Celtic and Slavonic languages and others. Hittite is by far the oldest attested member of the group which gives a special interest[13].

The Hittite heiroglyphs were recovered from various excavations in the recent past. Decipherment of these inscriptions was slow and painful. The place names Hamath, Karkamish and Gurgum from where the epigraphs were recovered; word signs for city, country, sun etc. were correctly identified.

A major break through was achieved in 1946 with the discovery of a large bilingual inscription in hieroglyphic and alphabetic Phoenician at Karatepe, lying to the north of the Cilician plain. This find served to confirm the general correctness of the decipherment upto that point, and it gave direct translation of more than 100 words as well as establishing more clearly the grammar of the language and presenting a long historical text which could be read and translated with confidence.

Writing was used in Anatolia as a cultural import in the form of clay tablets with the cunieform script during the periods of the Assyrian Merchant colonies (C.2800 - 1800 B.C.) and the Hittite Empire (1650-1200 B.C.) The Hittites borrowed the Cuneiform script and adopted it to writing their own language and those of their neighbours including the western Indians. For their monumental inscriptions on stone and also on their seals they used a hieroglyphic script which is known for the period (B.C.1500-1200 B.C.) The Hieroglyphic script seems to have originated in western Anatolia with the luwians and shows closer links with Aegean writing of Crete and Greece than with Mesopotamian Cuneiform[14]. The hieroglyphic writing was found on dressed stone slabs and rock surface. This practice was chosen by Ashoka the great for the Rock edicts in India as early as 4th Century B.C. There are a few logograms similar to Indian Ligatured graffiti[15].

6,7,8 CARIAN, LYCIAN, CYPRIOTE:[16]

They are the scripts which prevailed in the ancient Asia Minor and Anatolia. These scripts were used by the Carians, Lycians, Cypriotes and Cannanites who were the contemporaries of the Minoan World. They may be dated from 1500 B.C. to 1000 B.C.

In Anatolia and Cyprus, in Cannan in Egypt in Sicily and even in Spain there are indications of intimate contacts with the Minoan world.

9. CANNANITES :

The Cannanites lived upto second millennium B.C. to the east of Mediterranean Coast (East Coast). Ras Sharma, Hama, Byblos Gezer, Lechish Tell-el-Ajjul are some important sites with Cannanite's habitation. As far as Cannanite Script[17] is concerned there are many evidences for existence between the 13th century B.C. and 1000 B.C. along with the Sinatic Script, South Arab and Modern Hebrew. A comparative study shows morphological resemblance with some of the graffiti on ancient Indian potsherds[18] The gold pendants from Ras Sharma showing Mother Goddess, plant motifs and symbol of life are exactly similar to the graffiti from Arikamedu and Daimabad[19] respectively.

10. EARLY CHINESE WRITING:[20]

Early Chinese writing presents a strange look. The 'tones' in Chinese speech render the language easier. But it is an obstacle to the foreigners. Some times it is called 'Polytonic'. There are about 450 syllables which make up 1200 combination due to their tones.

The Chinese writing was originally pictographic. Even the modern less centralised script exhibits recognisable traces of its original pictographs. The Chinese characters are classified as pictographs, suggestive signs, ideograms, inverted signs, metaphorical or borrowed signs and phonograms. The Chinese writing was very complicated and incapable or influencing people of other cultures.

The earliest known form of Chinese writing are the so-called 'Oracle bone Inscriptions' of the late Shang divinatory. They are incised on **turtle plastrons and ox scapulate,** dating 1200-1050 B.C. Shang Bronze inscriptions from about 1100 B.C. constitute the second earliest source of evidence for Archaic Chinese Writing[21].

Graffiti found on numerous pottery fragments of Neolithic sites dating back to as early as 4800 B.C. are claimed to be the source of Chinese characters[22].

11. THE PHOENICIANS AND THE PUNIC SCRIPT :

The Phoenicians are the people who occupied a narrow strip of Levant coast from Tartus to Mount Carmel during the beginning of Ist Millennium B.C. Their chief towns are Aradus, Byblos, Siden and Tyre. All lie on the eastern coast of the Mediterranean sea[23]. The Cannanites, Sinatics, Hittites were the neighbours of the Phoenicians.

The Phoenicians wherever they went held firm to their own language and script, though changes in dialect grew up as time went on in different regions they occupied. Minor variation in letter forms also arose[24]. Many scholars like Singer, Driver, Diringer[25] and Haris to name a few worked on the script and language of the Phoenicians. There are many letters which resemble the Indian graffiti (Figs. 17-24)

According to Herodotus, the Phoenicians came from the coasts of the Indian Ocean[26]. Hence it needs an elaborate investigation to study the morphological resemblence of Indian graffiti with the Phoenician letters.

The other scripts such as Hebrew, Ogam, Kharosthi and Brahmi were the neighbours of the Phoenicians.

12. THE ETRUSCAN AND THE ETRUSCAN SCRIPT[27]

The long history of Etruscans on the soil of the Italian Peninsula began in the early years of the 7th Century B.C. came to an end only a very short time before the Christian era.

According to Herodotus, it was emigration by sea that had brought the Etruscans from Anatolian Lydia and elsewhere in Asia Minor to the sunny shores of Jyrrhenian sea. The principal Etruscan sites are in Tuscany and Laltium.

The Etruscan script and language still remain as an enigma. The deciphering of the Etruscan script is a difficult and vexed question. The characteristic features are enigmatic and so special attention has been given to the study of the history and civilisation of the Etruscan people, which is termed as Etruscology[28]. The Etruscan linguistic material that has come down to us is far from negligible. The fertile soil of Tuscany has furnished us with about 10,000 inscriptions, engraved or painted on all kinds of manufactured objects or works of art on mirrors, cists, vases, sculptures, paintings or tiles, columns, funerary urns, sarcophagi etc[29].

In Pompeiz Mafuri (in 1942-43) was discovered a refuse pit containing various objects dating from 1550-400 B.C. including the fragments of Bucchero ware with Etruscan graffiti[30].

The Etruscan script has some parallels with Archaic Greek script. But more than 60 letters of the former are similar to the Indian graffiti[31] (Figs. 17-24).

A rare terracotta shaped urn from Aleban hills with engraved geometrical decoration shows many signs like swastika, stylised human figurines etc. and are very similar to those of the South Indian graffiti[32].

Another interesting object is a biconical urn fired in red clay used as an ossuary, villanuvian type, decorated with reliefs of geometrical and swastika designs[33], the swastika is almost similar to the one we find as graffiti from Salihundam and has been dated to 7th Century B.C.

A Bucchero amphora with an incised alphabet and Etruscan inscription from Formello, near veil of about 600 B.C. shows various signs similar to those of Indian graffiti. This piece has been noticed in the Museum of the Villa Giulia in Rome[34].

Another Bucchero vase from the collections deposited in the Vatican Museum bear Etruscan inscriptions on the base and belly which have parallels in Indian graffiti[35].

B. ANTIQUITY OF WRITING IN INDIA :

The proper writing in India has had a deep antiquity going back to the Harappan period. But the origin of the Harappan script and the decipherment remain unsolved till today. There are theories claiming indigenous and foreign origin to the script. Leaving this controversial script, we shall pass on to the Vedic Age which is generally accepted as the succeeding period of the Harappans.

There are references in the Vedas to the art of writing. There are references to metres and technical terms regarding the composition of works in the **Rig Veda**[36], **Vajsaneyi Samhita** of the **Yajur Veda**[37] and the **Atharvana Veda**[38].

The **Upanishadas**[39] refer to **Aksharas** (letters). Similarly the **Āranyakas**[40] and the **Brāhmanas** have certain references to the letters.

The **Ashtādhyayi**[41] of **Pānini** of 4th or 3rd Century B.C. contains references to terms like Lipi (Script), Lipikara (Scribe), Yanani (Greek Script) and Svarita (a mark in writing or sign). There was a custom of marking of the ears of cattle with the signs or figures of 5 and 8 and also religious symbols like **Swastika** during the days of **Pānini**. The **Arthasāstra** of 4th century B.C. contains detailed references to writing and writing with signs. There is a mention of students learning the alphabet and writing[42].

Besides the above said literature, the early Jain and Buddhist literature carry evidences to the existence of different scripts in Ancient India. According to some early Jain works there were as many as eighteen different scripts used in India. The Buddhist work **Mahāvatsu** refers to as many as thirty varieties of scripts used in our country. According to another Buddhist work **Lalitha Vistāra**[43] there were sixty four scripts used in India. These works may be assigned to a period from 4th century B.C. to 2nd century B.C.

The writing materials include wood, bamboo, leaf and gold board. There is a word **chintati** which may stand for incision - (ie.) writing signs

on hard materials like stone, wooden boards and earthern ware vessels and soft materials like Palm leaf **(Tadapatra).**

But writing with ink was done on birch bark **(BhurjaPatra)**. However, the word **chintati** may be taken to denote the art of incision which gained momentum in the Chalcolithic and Iron-age periods as evidenced from clay seals and inscribed potsherds, graffiti bearing pot sherds and stone inscriptions.

Thus all the abovesaid evidences suggest a great antiquity to the art of writing in India and for its indigenous evolution. This deep antiquity of writing taking it back to as early as the Vedic period could not be substantiated by specimen of writing discovered so far. However, the individual as well as the ligatured graffiti of the Late Harāppan, the Chalcolithic and the Iron age could be considered as proof for the existence of some sort of writing on hard materials during these periods. But the identification or the meaning of such graffiti stand on a different plane or footing. The earliest datable written records are the Brahmi inscriptions of Asoka. The writing systems or the script of the Pre-Asokan period has to be explained in terms of the above ligatured graffiti alone, and this aspect has been dealt with in Chapter VII. Several centuries should have lapsed for the development of the several varieties of scripts to be used in the inscriptions of the period of Asoka[44].

C. ANTIQUITY OF WRITING IN SOUTH INDIA :

The antiquity of writing in South India is very deep and there are also literary evidences to the existence of the same during the time of Asoka and even earlier. The script which was used in ancient South India was known as **Drāviḍa Lipi** - Dravidian Script. South India in ancient days was called Dravida Desa in the Prakrit and Sanskrit works of North India. The Buddhists work "**Lalitha Vistara**" calls the South Indian Script as **Drāviḍa Lipi** and the former was in Sanskrit. But the Jain work **Pannavāna Sutra** which was in Prakrit mentions the same as **Damili**. The former work places the **Drāviḍa Lipi** in the 17th order out of eighteen scripts mentioned. The Brahmi script tops the list in the

abovesaid works and that suggests that the Brahmi was the most important and widely practised script in ancient India. The term Brahmi (bammi of Jaina literature) is mentioned for the first time in a Jaina work **Samavya Vigyana Sutra** which may be ascribed to first century B.C.[45]

The nomenclature of the **Dravidian** or **Damili** Script suggests that it was used for writing the early Dravidian Language. It may be observed that the term **Damili** indicates that it was used mostly for the Tamil Language rather than other Dravidian Languages for, Tamil is a very old language with great antiquity[46]. Therefore it is evident from the foregoing references that there was a separate script for writing the Dravidian Languages or it may even be said that the script was exclusively used for writing the Tamil language in the earliest known period of the history of South India or Tamil country. This **Damili Script** might have been altogether a different one from the so called Brahmi script which was also in use in ancient India. This is borne out from the fact that both the Brahmi and the **Damili** or **Drāvidi** script are listed separately in the above said works.

But it has recently been held that the **Damili** script is the same Brahmi script and former has been named as Tamil-Brahmi by scholars like R. Nagaswamy I.Mahadevan, K.G.Krishnan, K.V.Soundararajan and others. The main argument which thrusts in favour of this identification is that the Tamil-Brahmi is none else than one of the varieties of the main Brahmi Script used for writing the Tamil language. The identification is based on the reading of the Brahmi inscriptions found in the natural caverns of the Jains and other saints reported from Tamil Nadu. It may be said at this juncture that the naming of Brahmi script found in the Tamil Country as **Tamil Brahmi** may be alright because it is in Tamil language. But there is no justification in identifying the Tamil script as Tamil-Brahmi. No reasonable or scientific explanation can be offered for such identification. Those scholars have arrived at the sensational conclusion probably on the assumption that no specimen of any other independent script which can be shown as having been used for writing the Tamil language in the Pre-Brahmi period is traceable so far. Further, even earlier Buhler had indicated that the Brahmi inscriptions of the relic

caskets recovered from Bhattiprolu[47] in the Krishna district, Andhra Pradesh represented the Dravida type would have influenced the creation of the nomenclature of Tamil-Brahmi.

But the assumption of the non-existence of any sort of script in the Pre-Brahmi period in the Tamil country is not based on any authentic material evidence and therefore it may be taken to remain as a mere speculation only or even as a myth. But this assumption can be exploded and the mystery surmounting the script or writing of the Pre-Brahmi South India is now unfolded with the discovery of thousands of graffiti singly or in groups (ligatured graffiti) from various parts of South India, particularly Tamil Nadu since Independence. If these graffiti are properly identified or interpreted it may throw some clues as to the prevalence of writing in the Pre-Brahmi period. The importance of the study of these graffiti in the evolution of the writing system of our country was not realised till recently. The value of the data available on this subject has not been properly assessed. It may even be said that the study of the graffiti has been ignored till B.B. Lal had published his paper on the Indian graffiti in 1962.

The significance of the graffiti and their role in the evolution of the writing system in ancient India more particularly in Tamil Nadu in the Pre-Brahmi period or the so called Sangam Age may be appreciated if one confronts with the large volume of graffiti reported from various excavations conducted in India since 1947. This aspect has been discussed in great detail in Chapter VII.

Let us now examine the references to the art of writing in the Sangam Works. **Tolkappiyam** one of the oldest works refers to the written forms of certain letters and lays down the grammatical rules to be followed in actual writing in the Tamil country in the early centuries of the Christian era and these rules have guided scholars to identify and interpret the Brahmi letters of the cave inscriptions. Therefore **Tolkappiyam** proves beyond doubt that there was a highly sophisticated, developed form of a script practised in the Tamil country during the early part of the so called Sangam Age falling between 3rd Century, B.C. and 2nd Century A.D. But **Tolkappiyam** may be placed slightly earlier than the other age old Sangam

Works. The former is placed around the beginning of the 1st Millennium B.C. by eminent Tamil Scholars like **Ilakkuvanar.**

Another earlier Sangam Work namely **Tirukkural**[48] opens with the couplet "All the letters (of the alphabet) begin from the letter "A" (Agaram). Another couplet refers to the letters as **Eḻuttu** and the numerals as **Eṇ** and compares them to the two eyes of man[49]. **Silappathikaram** contains references to a variety of script namely **Kaṇṇeḻuttu**[50]. It is described in that work that the articles of merchandise imported at the port of Kaveripoompattinam in Nagappattinam district were stamped with **Kaṇṇeḻuttu**. The same work calls the royal scribe as **Kaṇṇeḻuttar**[51]. According to Raghava Iyenger, **Kaṇṇeḻuttu** was a form of picture writing. Most probably it may stand for superinscription i.e. visual writing. But it may also be taken to mean alphabet writing[52]. The **Kaṇṇeḻuttar** may be compared to the royal scribe known as **Thirumugameḻuduvōr** of the royal court in medieval Tamil Nadu.

Another work **Jeevaka Chintamani**[53] refers to yet another variety of script known as **Karanteḻuttu.** It has been taken to mean some sort of secret writing. But according to Nachchinarkiniyar, the commentator of **Tolkappiyam,** it refers to taking copies of letters from original texts or taking down notes (or letters) as and when dictated by one who was familiar with the writing system (alphabets)[54].

A Tamil work of 8th Century A.D. known as **Nigandu Divakaram,** refers to four varieties of scripts. They are given in the order as **Peyar Eḻuttu, Muḍiveḻuttu, Vaḍiveḻuttu** and **Thanmai Eḻuttu.** Another work **Pingalandai** also contains references to the same four varieties of scripts but they are given in a different order as **Vaḍiveḻuttu, Peyar, Thanmai Muḍiveḻuttu.** Of these, **Peyar Eḻuttu** may be the writing of names and **Muḍiveḻuttu** may be the final writing. It seems that the last mentioned script was the most evolved form of writing and well developed.

There are also various references to the nomenclature of script in some grammatical works of medieval Tamil Nadu. The old commentary on the **Yapperumkalam** refers to four varieties of scripts of writing namely **Uruveḻuttu, Unarveḻuttu, Oli eḻuttu, Thanmai Eḻuttu.** According to the

author of the work, the **Uruveluttu** stands for picture writing (Pictographs), **Unarveluttu** for the heiroglyphs or Ideographs, the **Oli eluttu** for sound sign or syllabic symbol and the **Thanmai Eluttu** for alphabetic characters. The four varieties of scripts mentioned in the work represents four stages in the evolution of writing in Tamil Nadu. Though the work belongs to a later period i.e. 11th Century A.D., it proves the existence of pictographs, hieroglyphs, Ideographs or Logographs and syllabic symbols in Tamil Nadu during that period. The author of this work was very familiar with these scripts and from his description it may be inferred that all the four varieties were in use during the period. These scripts could have been in use right from the beginning. The author further stresses that a scholar should be familiar with these scripts and therefore this work stands as a monumental proof for the existence of pictographs and logographs in the ancient Tamil country and this is corroborated and confirmed by the graffiti. A late work of 17th century A.D. also explains in detail the abovementioned scripts[55].

In this connection one has to bear in mind that the word **Eluttu** in ancient Tamil not only denotes the script or letter or writing but also painting. There are numerous references in the Sangam works where the word **Eluttu** has been used to denote Painting[56]. From this it is evident that the Sangam age people considered Painting also as a form of writing[57]. This is attested by **Silappadikaram**. Further the painted letters found in association with rock paintings in places like Kilvalai and Maharaja Kadai bear testimony to the fact that painting was also treated as a variety of writing in the ancient Tamil country.

The foregoing literary references right from the Sangam age down to the 17th Century A.D. confirm the existence and practice of atleast four varieties of scripts in ancient Tamil Nadu.

The mention of **Vadiveluttu** and **Uruveluttu** undoubtedly establishes the fact that the Pictographic and Logographic writing were not unknown to the people of Tamil Nadu and offers additional evidences to justify the identification of some of the graffiti as Pictographs and Logographs. Therefore it has been now established that there are literary references to such polytonic and pictographic writings in ancient Tamil Nadu.

REFERENCES

1. Hans J. Nissen (1986), "The Archaic Texts from Uruk" World Archaeology, Vol.17, No.3, P. 317-333.
2. **Ibid.** P. 317
3. John R. Day (1986) "Emergence of Writing in Egypt", **World Archaeology**, Vol.17, No.3, P. 309.
4. P. Kaplony (1963), **Die Inscription der Agyptischen Fruhzeit** 3 Vols. Wiesbaden (1966) **Kleine Beitrage Zuden Inschritten der Agyptischen Fruzseit** Wiesbaden
5. W.B. Emery (1938), **The Tomb of Hemaka, Cairo - P. 41.** See also (1950), **'Archaic Egypt'.**
6. J. Cemy (1952), **Paper and Books in Ancient Egypt,** London University College.
7. John D. Ray (1986), **Op. Cit.,** P. 316.
8. J.P. Oliver, (1986), "Cretan Writing in the Second Millennium B.C.". **World Archaeology**, Vol. 17, No.3, PP.317-389.
9. Francois Vallat, (1986), "The Most Ancient Scripts of Iran", World Archaeology, Vol.17, No.3, P.347, - Fig.3.
10. David Hawkins, (1986), "Writing in Anatolia", **World Archaeology,** Vol.17, No.3, PP. 363-376.
11. David Hawkins, (1986) "Writing in Anatolia", **World Achaeology,** Vol.17, No.3, P.363.
12. **Ibid.** p.364
13. **Ibid.** p.364

14. **Ibid.** P.376

15. **Ibid.** Fig.1. P.371

16. Arthur Evans, (1909) **Scripta Minoa,** Vol. I.

17. John Gray, (1964). **The Cannanites** (Thames and Hudson),P 22 Fig:3..

18. **Ibid.** P.143, Fig.49

19. **Ibid.** P.230, Pl. 29

20. G. William Boltz, (1986), **World Archaeology**, Vol.17, No.3, PP.420-436

21. William Watson, (1962), **China,** (Thames and Hudson), PP. 83-85, Fig.17.

22. G. William Boltz, **Op. Cit.,** P. 430, Fig.3

23. Donald Harden, (1962), **The Phoenicians,** PP. 19-56

24. **Ibid.** P.115, Fig. 33

25. Diringer, (1948), **Writing**, London, also see Z.S. Haris, **Grammar of the Phoenician** Language, New Haven, (1936)

26. Donald Harden, **Op.Cit.** P. 219.

27. Raymond Bloch, (1958), **The Etruscans** (Thames and Hudson)

28. **Ibid.** PP. 19-47

29. **Ibid.** PP. 65-79

30. **Ibid.**

31. See Fig. 11

32. **Ibid.** PP. 87-88, Fig. 9

33. **Ibid.** P. 248, Pl. 30

34. **Ibid.** P. 254, Pl. 72

35. **Ibid.** P. 254, Pl. 74.

36. **Rig Veda,** X, 14, 16, 13.3.4.

37. **Yajur Veda,** XI, 8, XIV. 19

38. **Atharva Veda,** VIII, 9, 19

39. **Taitriya** - I.I. etc.

40. **Aitreya,** III, 2.1 II. 2.4 etc.

41. **Pānini** - 4.1.49; 1.3.75; 3.87; 4.3.116; 1.3.11.

42. **Ashtādhyayi** - 1.5.2; 1.19.6; 1.12.8;

43. **Indian Culture** - Vol.II, P. 474; Chapter X. See Chapter VIII for more details regarding the subject.

44. **I.A. Vol. XXXIII,** Appendix, P. 8.

45. R. Nagaswamy, "The Origin and Evolution of Tamil Vatteluttu and Grantha Scripts" Abstract of Papers, **II International Conference - Seminar of Tamil Studies** (Madras 1968)

46. **Damili** stands for the Prakrit form of Tamil

47. **I.A. Vol. XXXIII,** P. 8. Also see **E.I.** II. P. 323.

48. **Tirukkural,** I. 1

49. **Ibid.**

50. **Silappadikaram** - XXVI, 135-36.

51. **Ibid.** XXVI, 170-171.

52. M. Raghava Aiyangar, **Āräccittogai,** PP. 140-141.

53. **Jeevaka Chintamani** - X. 1667, The Secret writing was known as **Gudhalekha.**

54. **Tolkappiyam,** "Naccinarkkiniyan Eluttathikāram Pāyira Urai," P. 9.

55. Srinivasa Desikar (Ed), **Ilakkana Kottu**

56. **Silappadikaram** - 13, 76.

57. It is stated in **Silappadikaram** that the young girls of the Sangam period had the practice of decorating their body with painted letters.

❖ ❖ ❖ ❖ ❖

VII. GRAFFITI AS PICTOGRAPHS, LOGOGRAPHS - LIGATURED GRAFFITI

A. GRAFFITI AS PICTOGRAPHS, LOGOGRAPHS

Bearing the facts dealt with earlier in mind, let us now consider the relevence of graffiti to the emergence of writing in India. An attempt has been made in the following pages to show that some of the graffiti may be identified as Pictographs or Ideographs or Logographs.

1. PICTOGRAPH :

As said earlier, Pictograph is nothing but a picture or actual representation of an object. The earliest form of writing is called Pictograph and the Pictographs are to be considered as recorded gestures.

2. IDEOGRAPHS :

Another cagtegory of Pictography is the Ideograph which stands for pictorial symbols and to suggest objects or abstract ideas.

3. LOGOGRAPH :

It is a picture of an object or part of an object for a word. The graffiti symbols of sounds may be considered as logographs.

The above mentioned three groups represent the first three stages in the evolution of writing in the ancient world. But in the absence of tangible evidence for the existence of a script, the signs or symbols of these three stages have to be considered as the pro-genitors of a script. The symbols of these three stages have to be convincingly identified in order to trace the existence or formation of a script or any system of writing in the ancient period.

A close and careful examination of the graffiti enabled us to pick up such of those signs or symbols of the three stages.

DECIPHERMENT OF PICTOGRAPHS :

Since pictography is the most natural and direct means of communications, it must have originated independently among different people of the various countries and therefore it is impossible to locate or identify a single system of pictography in the ancient world. This aspect is clearly demonstrated in (Figs. 52-55).

The decipherment of pictography needs a thorough knowledge of people and their culture, customs and manners and environmental conditions because the same pictography made by a set of people may have a different significance among others within a country or outside. Therefore it is usually very easy for any one to get a meaning out of a pictograph but at the same it is quite a different matter whether that was the meaning which the scribe or the author intended to convey. Further, the ancient people did not think and write as we think and write today. Bearing this in mind the present author has earlier attempted to identify certain graffiti with the help of the rock paintings.

According to Heras, the pictograph, may broadly be divided into two categories : 1) Natural Pictograph and 2) Conventional Pictograph. The natural pictograph is the pictograph depicting the object. But in the conventional pictograph, the depicted object cannot be seen but after a close examination it may be realised that it is also a real pictograph. Based on this definition and classification of the pictographs, we may proceed to explain such of those graffiti which could be fitted into this frame.

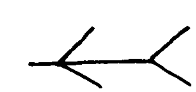
Before entering into discussion, the present author wants to inform that not all the 513 prominent graffiti enumerated by him may be called pictographs. The graffiti include pictographs, Ideographs and Logographs besides other categories as described earlier in Chapter V, because the earlier systems of writing would not be purely pictographic or ideographic or Logographic but mixed. As said earlier, even in Egypt there are three stages in the writing system.

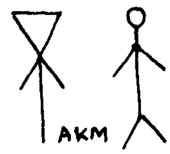
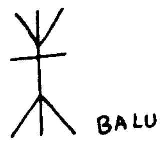
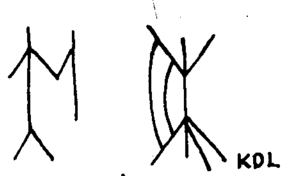
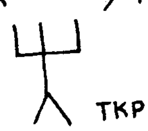
According to many scholars, the question whether there was any pictographic or ideographic script that preceeded the evolution of true writing in India has not found a good answer. It is partially due to the paucity of material evidence on the subject and mostly due to the indeterminate character of most of the material available with regard to their chronology and place in the evolution of writing in India. But the answer to the question has now been found in the graffiti as shown below :

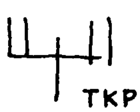
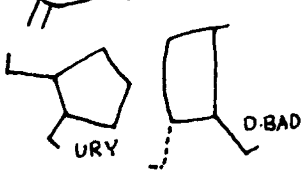
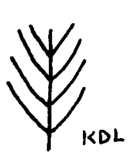
GRAFFITI - NATURAL PICTOGRAPHS :

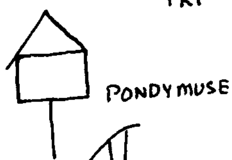
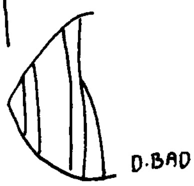
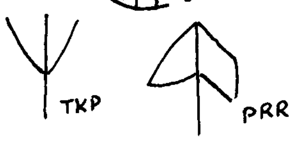
As said earlier, among the graffiti, the following may be identified as Natural Pictographs. The graffiti, their description, values and meaning are tabulated and given below :

THE FOLLOWING MAY BE IDENTIFIED AS NATURAL PICTOGRAPHS.
THE GRAFFITI, THEIR DESCRIPTION, VALUE AND MEANING ARE TABULATED & GIVEN BELOW :

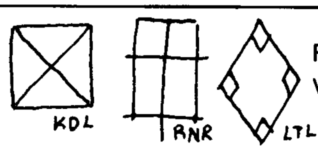
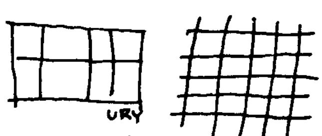
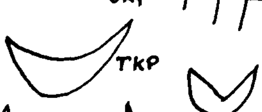
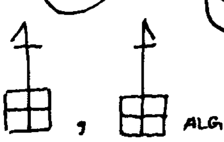
Sl. No.	Pictographs	Description	Value	Meaning
1	2	3	4	5
1.		Simple and stylised Human Figure	Āi	Man

1	2	3	4	5
2.		Man or Headman or Superman	Thalai Āḷ or Kaḍavul	Chief man - Chieftain or God.
3.		Figure with four arms	Kaḍavul	God
4.		Man playing the drum	Parean	Drummer
5.		Man holding a bow or Vēl or Shaft	Villāḷ Villālan or Vēlan or Kōlan	Hunter or Archer or Chief
6.		Man praying	Tuthi	To pray

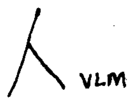
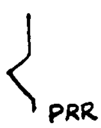
1	2	3	4	5
7.		Man lifting something	Tukkan	Lifter
8.		Ram	Ēdu or Āḍu	Ram
9.		Crab	Naṇḍu	Crab
10.		Bird	Parava	Bird
11.		Bird flying	Parava	To fly
12.		Tree with Branches	Maram	Tree

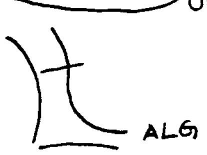
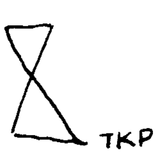
1	2	3	4	5
13.		Flower	Alar	Flower
14.		Mala or Mountain	Mala	Mountain
15.		House	Ir or Il	House or hut
16.		Harp	Yāl	Harp
17.		Trident	Vēl	Trident
18.		Boat	Ōḍa	Boat

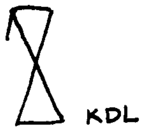
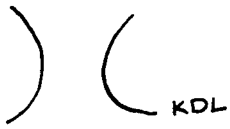
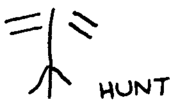
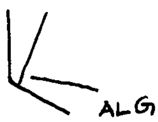
CONVENTIONAL PICTOGRAPHS : OR IDEOGRAPHS :

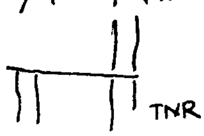
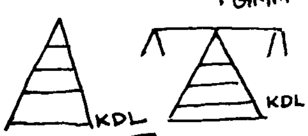
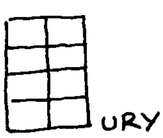
Sl. No. 1	Pictographs 2	Description 3	Value 4
1.		Four houses within an enclosure-Village or town	Hāl, Vid Ur or Palli or Pali — Four houses or Village or City
2.		Nilam	Field - Paddy field
3.		Velli or Pirai - Nila or Nila	Moon - Crescent Moon
4.		Kodi or (Kôchi Nilai)	Flag or Sun
5.		Tuthi or Tuthikkai Yanai or Yānai or Elephant	To pray or Elephant
6.		Nalam	Prosperity

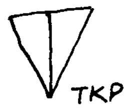
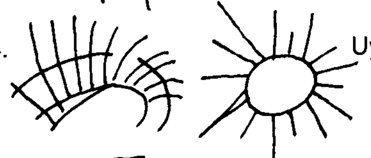
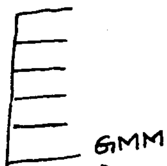
Univ of Washington Libraries

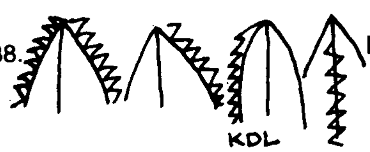
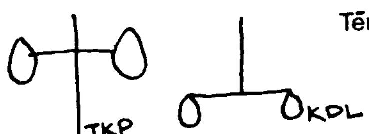
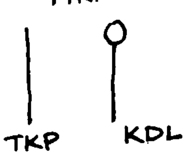
1	2	3	4
7.		Naḍa	Walk
8.		Tāndu	To jump
9.		Oḍu	To run
10.		Kaṇ	Eye or to see
11.		Naasi	Nose or to smell
12.		Vāy	Mouth or to eat

1	2	3	4
13.		Kādu	Ear or to hear
14.		Pādam or Olipātham	Foot - Sacred foot
15.		Tōl or Tula	Shoulder or to shoulder or Balance
16.		Muzhankai or Muzha or	Fore arm or a musical instrument Linear measurement
17.		Kāl	Leg
18.		Uḍal	Torso

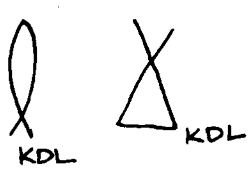
1	2	3	4
19.		Uḍukkai	Damaru
20.		Iḍai	Waist
21.		Mugam	Face
22.		Mey or Kāyam	Body
23.		Munkāl or Muzhankal	Foreleg or Knee
24.		Sun[3] or Kodi	Sun or Numeral four

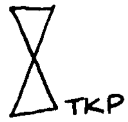
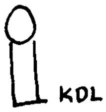
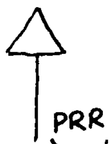
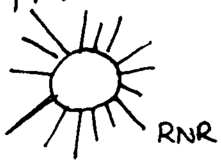
1	2	3	4
25.		Vilangu	Animal
26.		Nārkāli	Chair
27.		Thūkku or Tulākkōl	Carry or scale
28.		Kōyil	Temple
29.		Kulam or Nīr toṭṭi	Tank or water Trough
30.		Kudir or Tīrpu[4]	Granary or Judgement

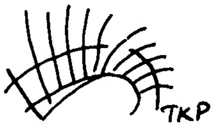
1	2	3	4
31.		Kāvaḍi	An offering to Lord Muruga
32.		Ari or aru[4a]	Half, to cut Harvest
33.		el Vali or Pagal	Sun or path of the sun or day time
34.		Uyarēl or Pagal	Rising sun-High sun or day time
35.		Sēppu or Vāru	Comb or To Comb
36.		ār	River

1	2	3	4
37.		Nīr	Water
38.		Nīr mala	Mountain with water
39.		Tēr	Chariot
40.		Kōl or Oru	Rod or Numeral One

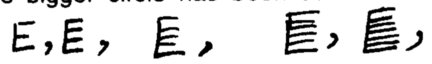
LOGOGRAPHS :

1.		Mīn	Star

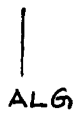
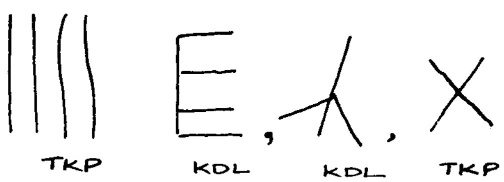
1	2	3	4
2.		Tari	To dress
3.		Cuni	Phallus
4.		Pāv or Tari	Snake or Handloom
5.		Muzha	A linear measurement A musical instrument
6.		Eri	Throw
7.		El Vali Pagal	Sun or path of the sun or day

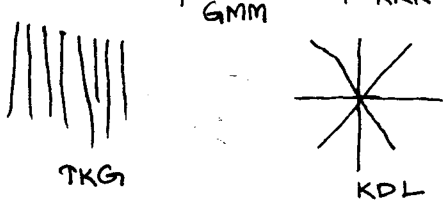
1	2	3	4
8.		Uyarēl	Rising sun, High sun or day
9.		Maṇḍai	Head

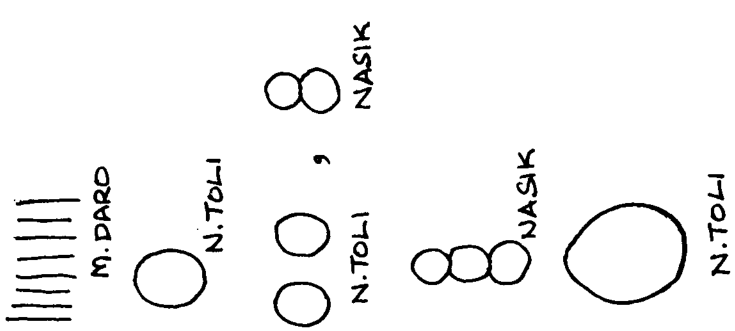
NUMERALS :

There are good number of sherds bearing the numeral signs, singly or in association with other signs. The vertical strokes with varying lengths are the commonly noticed numeral signs. A single vertical stroke is assigned a numerical value of one. It occurs alone or in series upto nine only. The number ten is not denoted by the series of vertical strokes but by a small circle. Most of the numeral signs of the Indus script are found in the graffiti also. But the star sign composed of short arms occurs as a numeral also in South Indian graffiti. This symbol is conspicuous by its absence among the Indus signs. The semi-circle is assigned the numerical value of ten in the Indus and the foreign scripts. But in the graffiti tradition it may be assigned the value of five only, as the small circle has been used for number ten. The bigger circle has been used for denoting hundred. As in the case of other scripts the numeral signs such as  etc. are assigned other values also.

The numerical signs of the graffiti and their values are tabulated below :

1	2	3
NUMERALS :		
1.		One
2.		Two
3.		Three
4.		Four

1	2	3
5.		Five
6.		Six
7.		Seven
8.		Eight



1	2	3
9.	M. DARO	Nine
10.	N.TOLI	Ten
11.	N.TOLI , NASIK	Twenty
12.	NASIK	Thirty
13.	N.TOLI	Hundred

B. LIGATURED GRAFFITI — SIGNIFICANCE :

As said earlier, the graffiti which occur in pairs or in association with more than one symbol are termed as "Ligatured Graffiti" They are termed so, for convenience of differentiating the individual or single graffito. Further, these graffiti constitute a class by themselves and offer us much evidence to consider them as a sort of script. Their length varies from two to seven signs. They have been noticed on the potteries of the Pre-Harappan, Harappan, Chalcolithic and the Pre and early Iron age. In majority of the ligatured graffiti the symbols are distributed in a horizontal straight line, like a script. But the size is not uniform in many cases. In some cases the symbols are super imposed and that poses difficulty in identifying the individual symbols (Pl. XV). Sometimes different Brahmi like signs are shown super imposed or overlapping and that suggests that the primitive method of writing ie. the signs which ought to have been shown in a line are superimposed. This is one of the striking characteristic features of the ligatured graffiti. This method of superimposition of signs or letters is not generally noticed in the case of inscribed potsherds. For, the signs in the latter constitute a script which may either be Harappan or Brahmi.

In most cases we notice that the symbols superimposed are different in character and shape. The symbols are shown at various angles and also upside down or simply projecting from the top or bottom or hanging. In a few cases, short or long strokes are added an individual symbol either at its top, middle or at its bottom. The addition of these strokes change the morphology of the basic symbol. But the addition of strokes is generally seen in the case of Brahmi like symbols.

While drawing the symbols, the potter or scribe did not follow any system or method in respect of spacing. It seems that he could have held the vessels at different angles while scratching the signs on them. But the question unanswered is why different signs are superimposed[5].

There are nearly 753 ligatured graffiti in all collected from various sites. The maximum length of a ligatured graffiti in different cultural context is given below :

3 Signs for the Pre-Harappan

7 Signs for the Harappan

5 Signs for the Chalcolithic eg. Daimabad

6 Signs for the Iron age Habitation eg. Arikamedu, Alagarai

5 Signs for the Iron age Burial eg. Nagarjunakonda.

The two signed ligatured graffiti predominate in almost all the sites. The distribution of ligatured graffiti at different sites and their length are shown in figs. 25-34 and Table VII.

Regarding the ligatured graffiti of the Pre-Harappan sites, Brahmi letter like symbols are not uncommon. Further short or long strokes are added to these signs.

Majority of the graffiti from Harappan sites are very similar to the Harappan script on the earthernware vessels. Though they are considered to be the inscribed sherds with Harappan script, they are included in the present work for the purpose of comparative study and analysis. It is interesting to note that there are nearly 65 sherds with two signs only. The decipherment of these graffiti will be easier than those of the script or the seals. Therefore a sincere and methodical approach may be attempted to read these two sign inscribed sherds and the reading may be applied to the decipherment of the signs on the seals. It may be also observed that the Indus letter-signs are not accompanied by figures as on the seals in most cases. Therefore these signs have to be identified among the signs on the seals in pair and the reading should be proceeded. There are many symbols in the Ligatured graffiti which have parallels in the graffiti of the Chalcolithic and South Indian Iron age (Figs.25-34).

Regarding the ligatured graffiti of the Chalcolithic period the same phenomenon ie. the occurrence of the pair of signs is noticed in the majority of the sherds as noticed in the Harappan period. There are also considerable number of sherds with three signs and a few with 5 signs.

Most of the signs constituting the ligatured graffiti are very similar to those on the Pre-Harappan, Harappan and the South Indian Iron age graffiti.

The Iron age ligatured graffiti from South India out numbered those from Chalcolithic and Harappan sites. In fact these graffiti have been built of two or more than two symbols. There are a considerable number of them with four or five symbols. In this connection, Sanur, Savanadurga, Kodumanal, Tirukkampuliyur, Alagarai, Uraiyur, Karur, Vallam, Arikamedu and T. Narasipur may be cited as the typical sites yielding bulk of these graffiti. Majority of the symbols constituting the ligatured graffiti are not new and belong to the same stock to which the Pre-Harappan, Harappan and Chalcolithic graffiti belong. It may even be said that the construction of the ligatured graffiti and the morphology of the signs suggest a common source within our country. We could say this because the signs which constitute the ligatured graffiti excluding that of the Harappan present various combinations of Indus signs, Brahmi letter like signs and graffiti (Table VIII).

LIGATURED GRAFFITI SIMILAR TO INDUS SCRIPT FROM SOUTH INDIA :

However there are as many as 84 ligatured graffiti which are built of with Indus signs only (Figs. 35-38). Of these 32 reported from Post Harappan and Chalcolithic sites, 52 reported from South Indian sites. Most of the latter carry two or three signs only. These are to be called hereafter "Inscribed sherds" of Indus Script" and not as "Ligatured Graffiti'. This is for the first time that inscribed sherds of Indus script have been brought to light in South India. These sherds offer various new combinations of Indus signs hitherto not reported from elsewhere. They have now become new additions to the already existing stock of inscribed sherds of Indus script reported from Harappan and other sites like Lothal, Kalibangan and Daimabad. Till now the scholars had held the view that Daimabad is the southern most point where the Indus script was in use. But the present study has pushed its southern boundary upto the Lower

Kaveri Basin. The discovery of these sherds have also dispelled the view of many scholars that Harappan civilisation could not have stretched its arm over South India and Tamil Nadu as the latter was separated from the former by a vast gap of time and space. But the present author has not only exploded their unfounded hypothesis but also has made sincere attempts to read the script using Dravidian etymology. He has also narrowed down the vast time gap.

These new combination of Indus signs on the sherds, particularly those with two and three signs would be easier to identify and read as they have been found in the land of the Dravidians (Particularly Tamil Nadu). The language of this script should be none else than the Proto-Dravidian. Hence, the decipherers need not have any hesitation to apply the proto-Dravidian language to interpret the script. Hitherto, the main objection especially voiced by S.R. Rao to apply the Proto-Dravidian language to read the Indus script lies in the fact that such of those decipherers who had attempted to read them in the Proto-Dravidian language, did so on the assumption that the script had a Dravidian Origin. The present author has now produced a concrete evidence to overrule the objection raised by S.R. Rao and he hopes that the Dravidian origin of the Indus script would now be welcomed by the decipherers also who have been arguing for and against the theory of the Dravidian Origin. The graffitology of South India has now proved its credentials to enact a major role in the drama of decipherment of the Indus script. The present work will certainly help the decipherers to initiate a fresh dialogue to accelerate the process of decipherment of the script to install the same in the galaxy of archaic scripts of the Ancient World.

CULTUREWISE DISTRIBUTION AND FREQUENCY :

The total number of ligatured graffiti collected is 768. Out of these, ommitting the ligatured graffiti from Pre-Harapppan and Harappan periods, we get the total number of ligatured graffiti as 605. The culturewise distribution and their percentage are given below :

		LIGATURED GRAFFITI	PERCENTAGE
Chalcolithic Habitation	...	80	15%
Chalcolithic Burial	...	6	1%
Iron age Habitation	...	398	66%
Iron age Burial	...	121	20%
	Total	**605**	

The above analysis shows that the bulk of the ligatured graffiti come from South Indian Iron age sites ie. a total of 519. The graffiti tradition seems to have slowly and steadily taken the form of inscription or script of pictographic or phonographic nature. This phenomenon which emerged in the Chalcolithic period, reached a matured status in the South Indian Iron age culture complex. Therefore this sort of ligatured graffiti seems to have served the purpose of a script during the period or assumed the role of the script.

A careful examination of the sign or symbol combination of the ligatured graffiti of both Chalcolithic and South Indian Iron age reveal interesting points hitherto unknown or unnoticed.

These ligatured graffiti are built of signs or symbols of different combination such as 1) Indus signs alone, 2) Indus signs plus graffiti 3) Brahmi plus graffiti, 4) Indus sign plus Brahmi plus graffiti and 5) pure graffiti marks or pictographs.

The data shown in Table VIII suggests the following points.

CHALCOLITHIC PERIOD

1. The late Harappan signs or the degenerated Harrappan signs were picked up to build these ligatured graffiti in the Chalcolithic period. These graffiti are not the same as those of the graffiti (inscribed sherds of Indus script reported from Lothal and Kalibangan). They are not included among the Indus signs on the seals or not placed on par with the Indus signs on the seals by the excavators themselves. They were left untouched. These graffiti are to be considered as constituting the late Harappan script. S.R. Rao himself has not taken up these ligatured graffiti very seriously, though he has paid more attention to single graffiti representing Indus signs. Therefore this group of graffiti has now to be added to the already existing inscriptions of Indus signs.

2. The ligatured graffiti with a combination of Indus signs, Brahmi letter like signs besides graffiti marks are not many, but the appearance of Brahmi like signs in the ligatured graffiti of this period tends to suggest the trend that a new script was on the card ie. the Proto-Brahmi script but this has not yet taken shape as suggested by the statistical data shown.

3. The ligatured graffiti with pure graffiti marks dominated the scene as there are nearly 46 such graffiti out of a total of 86.

4. The ligatured graffiti from the habitation sites out numbered those of the burials. This again confirms our conclusion that the graffiti were something more than mere symbols.

5. The superimposed symbols or signs in the ligatured graffiti suggest the process of distintegration or decline of the Indus script and at the same time they show that the Pre-Iron age people were on the threshold of moulding or shaping a new script based on the formation of the Indus script (Pl. IV) or combination of Indus signs, Brahmi like signs and graffiti marks.

SOUTH INDIAN IRON AGE :

Here again we notice the repetition of the same trend but with more vigour ie. the ligatured graffiti from the habitation sites outnumbered those from the burials.

1. The Indus signs on the ligatured graffiti from Tamil Nadu appear as Late Harappan or mature or even degenerated Harappan signs. As said earlier, the location of the graffiti has now confirmed our hypothesis that the Iron age people of Tamil Nadu were the descendants of the Harappans.

2. Again the ligatured graffiti with the combination of Brahmi like signs and graffiti marks are on the increase. They show that the Indus script was slowly giving way to the formation of a new script ie. Proto Brahmi as said earlier.

3. As in the Chalcolithic period the ligatured graffiti with pure graffiti marks constitute the bulk; this suggests again that the graffiti was serving the purpose of a script either in the form of a pictograph or ideograph or monogram or a combination of all the three prior to the formation of the Proto-Brahmi script. This is not very clear and this aspect of the ligatured graffiti has to be subjected to close examination. However, the present author has made attempts to read some of them from among all the above mentioned categories, with proper Dravidian etymology at the end of this Chapter.

DIRECTION OF WRITING :

The ligatured graffiti with Indus signs (Inscribed sherds of Indus script) as well as with pure graffiti marks are read from right to left. But the ligatured with other combination of signs are read from right to left or **Vice Versa** depending upon the context rendering sensible meaning. There are only a few sherds with signs clearly drawn overriding. This overriding factor sends some clues to establish that the direction of writing of the ligatured graffiti was from right to left. For instance in the specimen shown (Pl. XV-1) the left sign overrides the right sign. This is clearly visible in another specimen also (Pl.XV-2). These two are the best examples for the ligatured graffiti with pure graffiti marks.

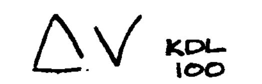
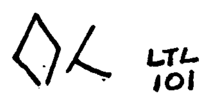
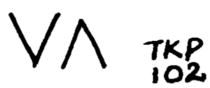
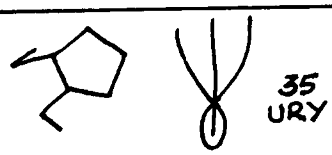
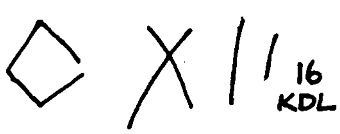
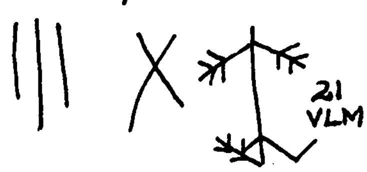
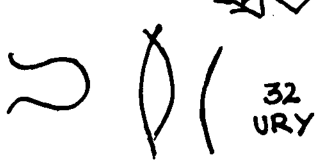
VALUES :

The values for the signs supplied is based on the methodology adopted in Chapter VII. However, for the Brahmi like signs, the value of the corresponding Brahmi letters is supplied assuming that such of those ligatured graffiti as Proto-Brahmi characters yielding place to the Brahmi script. This methodology for identifying the direction of writing and values and meaning of the graffiti has been uniformly adopted throughout the work.

An attempt to decipher certain (43) prominent ligatured graffiti has been made and their value and meaning derived are tabulated below :

DECIPHERMENT

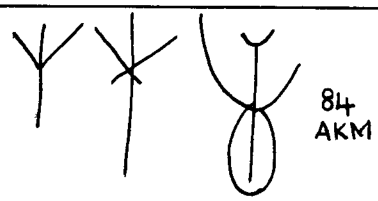
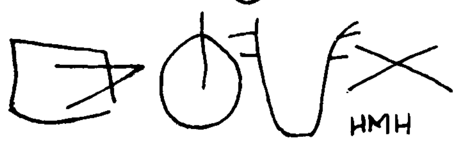
LIGATURED GRAFFITI WITH INDUS SIGNS ALONE :

SL. NO. 1	LIGATURED GRAFFITI 2	VALUE 3	MEANING 4	DIRECTION 5
1.		Paravai il	Paravai il=Nest	Right to left
2.		Paravai Ūr	Paravaiyūr-Village Name	-do-
3.		Iru Paravai	Two birds	-do-
4.		Iru Koyil	Two temples	-do-
5.		Ko naṇḍaṉ	Name of a person or King	Right to Left
6.		Iru Mīn Ūr	Iru Mīnūr-Village Name	-do-
7.		Ōdu Mīn Mūnru	Three stars running or Three running stars	-do-
8.		İnthu Min Maṇḍai[2*] or İnthu Mīn Kalam	Five fish pots or five fishing boats	-do-

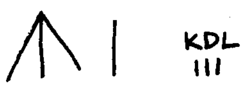
1* shown upside down

2* The term **Mīn Sorinda Maṇḍai** for a vessel is mentioned in Sangam Work - **Kuruntogai** - 1694.

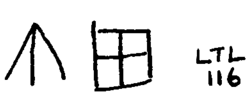
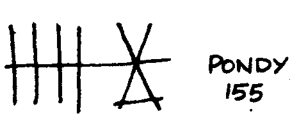
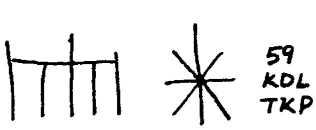
Univ of Washington Libraries

1	2	3	4	5
9.		Kaḍavul Vēl Vēl Kaḍavul Iru Vēl or Kō Iruvēl=God	God Vēl Vēl-Lord Muruga (Associated with Vēl) or King Iruvēl (Name of the Ruler)	Right to Left
10.		Min Mandai – Pathinon Paravai ur	Fish pot eleven Paravaiyur (Village name)	-do-

LIGATURED GRAFFITI WITH INDUS SIGNS AND GRAFFITI

11.		Ōr Mala	A Mountain	-do-
12.		Mala Iru (Eru) Iru mala (Eru)	Climb a top of a hill Two mountains	-do- Left to right

*Shown upside down

1	2	3	4	5
13.		Mala il	Mala il-Mountain House=Cave	Right to left
14.		Mala Ūr or Ūr mala	Malaiyūr=Village name or Mountain in the village	Left to right or right to left
15. *		Nāngu Talailāl or Nāngu Talayon	Four headed man ie. Brahma.	Left to right
16.		Tūkkan tūkku	Trader's balance Tukkan (Trader)	Right to left

* Shown Upside down

Univ of Washington Libraries

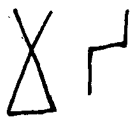
1	2	3	4	5
17.	 SANUR 57	Vēl mala tuti	Worship the Vel Mountain	Right to left
18.	 SANUR 58	Mala Vēl tuti	Worship the Mountain Vel	-do-
19.	 SANUR 59	Mala tuti Vēl	Same as above but signs positioning reversed	-do-
20.	 SANUR 61	Tuti Vēl mala	-do-	-do-

1	2	3	4	5

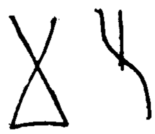
LIGATURED GRAFFITI WITH INDUS SIGNS AND GRAFFITI :

21.	 27 S.ANUR	Tuti Vēl mala	Worship the Vēl mountain; same as in 20 but signs reversed	Right to left

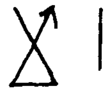
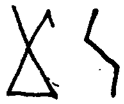
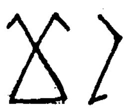
LIGATURED GRAFFITI WITH INDUS SIGNS AND BRAHMI :

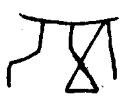
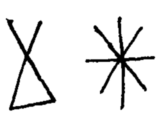
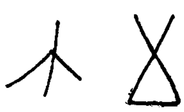
22.	 KRK 139	Ōdu Mīn or Mūnru Mīn	Running star Three star	-do-

LIGATURED GRAFFITI WITH GRAFFITI AND BRAHMI :

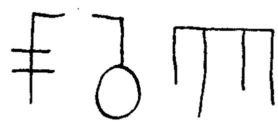
23.	 KRK 138	Nān Mīn	Four stars	-do-

Univ of Washington Libraries

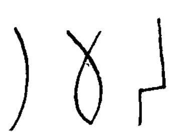
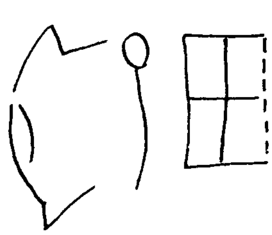
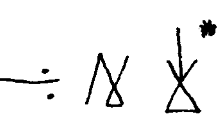
1	2	3	4	5
LIGATURED GRAFFITI WITH GRAFFITI AND BRAHMI :				
24.	 KDL 140	Oru Mīn (direction is indicated by arrow)	A Star	Right to Left
25.	 KRK 141	Mūnru Mīn	Three stars	-do-
26.	 KRK 142	Same as above	-do-	-do-
27.	 KRK 143	Ōḍu Min or Mūnru Mīn	Running star or Three stars	-do-

1	2	3	4	5
LIGATURED GRAFFITI WITH GRAFFITI AND BRAHMI :				
28.	 KRK 144	Ōḍu Mīn	Running star	Left to right
29.	 KRK KDL 145	Aru Mīn	Six stars	Right to left
30.	KDL 148  KRK 147 	Eṇ Mīn	Eight stars	-do-
31.	 KDL 146	Mīn āl Para Min or Flying star	Name of a woman Flying Star or Falling Star (Comet)	-do- Left to Right

Univ of Washington Libraries

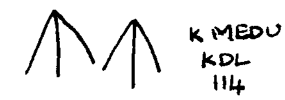
1	2	3	4	5
LIGATURED GRAFFITI WITH GRAFFITI AND BRAHMI :				
32.	 KDL 65	Mīn maṇḍai (Min Maṇḍalam) il āḷ (Illal)	Mīn Mandalam or Orbit of stars * House wife (to be taken as two parts)	Right to left
LIGATURED GRAFFITI WITH INDUS SIGN, GRAFFITI AND BRAHMI COMBINATION :				
33.	 KDL 66	Nānku Iru pattu āḷ=80 āḷ	80 men	-do-
34.	 KDL 67	Kōn na(n) tha(n) Nata na Kon or (Na)tana rājan= (Na)tarājan	Kona(n) tha(n) Name of a person or King or Natarāja (Lord of Dance)	-do- Left to right.

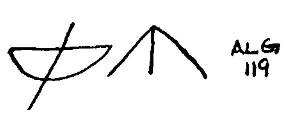
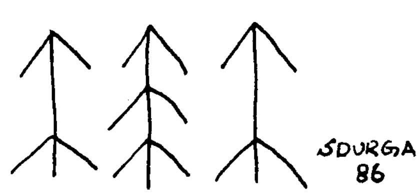
* Maṇḍai is shown with min inside. Therefore Maṇḍai here may be read as Mandalam.

1	2	3	4	5
LIGATURED GRAFFITI WITH INDUS SIGNS, GRAFFITI AND BRAHMI COMBINATION :				
35.	 31 KARUR	Ōdu Mīn inthu	Five running Stars	Right to Left
36.	 25 KDL	Ūr kō naṇḍan	Konaṇḍan of the Village=Chieftain of the Village	-do-
37.	SLM 88a 	Kōn āḍaṇ-(?) =Koṇḍaṇ (?)	Chieftain of Kōnāḍu	-do-

* Stands for āḍan also, as the same is shown in the Rock Paintings for āḍan (dancer)

Univ of Washington Libraries

1	2	3	4	5
PURE GRAFFITI :				
38.		Iru mala	Two hills	Right to left
39.		Iru nīr mala (The vertical wavy line for nīr)	Two hills with water falls	-do-
40.		Iru nīr malai (but the wavy line is shown on the slope)	-do-	-do-
41.		Vēl mala	Vēl mountain	-do-

1	2	3	4	5
PURE GRAFFITI:				
42.		Mala vil=Malaivil	Hill like bow	Right to left
43.		Mū āḷ=Mūvāḷ	Three men *	-do-

* Three men are shown at the centre.

C. LANGUAGE AND AUTHORS OF THE GRAFFITI :

The identification or reading of the graffiti in the foregoing pages has been purely based on the assumption that the pictographs or logographs among the graffiti represent the Dravidian language of the bygone days or the language of the non-Aryan, Proto-Dravidians of India. The Tamil words chosen for reading the symbols need not necessarily be of Proto-Dravidian origin but may be a mixture of the Dravidian language of the Sangam and the Pre-Sangam age because of the fact that some of the signs have been read with the help of the Tamil words in vogue during the Sangam period also. Even the Tamil words and numerals of the medieval period have been chosen to read them.

The factors which weighed in favour of this reading are as follows:

1. Of the total of 3056 graffiti, more than 60% ie. 2195 have been reported from the Iron age burials and habitation sites of South India ie. Dravidian land. Even among the 60% (1613 are from Tamil Nadu only (Table III)

2. Even the Chalcolithic graffiti which account for nearly 20% of the graffiti ie. 548 have come from sites mostly situated in Maharashtra, Gujarat and Rajasthan regions lying south and south west of Narmada River. We may not be far wrong if we include these regions also with South India or Dravida Desa of ancient period. This is further strengthened by the striking similarity of graffiti and the black and red ware tradition of these two regions. The similarity of the Pre-Harappan, Non-Aryan graffiti and South Indian graffiti lends additional proof to this argument.

3. Majority of the Indus signs not excluding their variants as many as 120 have their parallels in South Indian graffiti (Fig. 39-41) which bring the cultures of these two regions to a close proximity inspite of the fact that they are separated by a vast gap of distance and time. As said earlier the gap may be narrowed down to a considerable degree. Though they are not contemporaries the Dravidians would have adopted these graffiti as remembrance of the Harappans[6]. In other words it may be said like this. The signs of the Indus script are reflected on the pottery of the Dravidians ie. the most fascinating and intellectual aspect of the Harappan culture is traceable in the graffiti tradition of South India. Conversely it may be said that the Harappan script reflects the Dravidian characters embedded in the graffiti marks. For instance, the fish sign which is common to the Indus script has also a very high frequency in the graffiti. They occur 58 times. The fish is known as '**mīn**' in Tamil and the Indus territory was once known as **(Mīnādu)** meaning "Land of Fishes" It is also believed that Vyasa, the author of **Mahabharatha** was said to be the son of a **"Matsya"** (**Mīnā**). The Sangam work **Puranānūru**[7] makes a pointed reference to a Chera King **Perun Cheralathan** who was said to have fed the army of both the Pandavas and Kauravas in the Mahabharatha war. This indicates the Chera King's association in one way or other with the incident of the Mahabharatha war. This is yet another proof which not only strengthens the view of the Dravidian origin for the author of Mahabharatha, but also justifies the naming of the Indus territory as **"Mīnādu"**.

Here as once observed that the Mohenjadaro civilisation was not a civilisation restricted to the Indus Valley; it was a civilisation that extended all over India and eventually we should find relics of this civilisation similar to those of Mohenjodaro all over Indian Sub-Continent[8]. Heras' prediction has become true as the relics of the Indus valley civilisation have been noticed well beyond the boundaries of the Indus basin touching Tamil Nadu and right upto Ceylon as enumerated in the earlier Chapters.

Hall has gone ahead by one step and observed that 'the culture of India is Pre-Aryan in origin and as in Greece, the conquered civilised the conqueror[9].'

The inscribed sherds with purely. Indus signs from a number of Iron age sites in South India (Figs.35-38) particularly in Tamil Nadu bear testimony to this hypothesis[10]. These inscribed sherds lead us to go a step further to pronounce that the Dravidians of South India are the

descendants of the Harappans and the language of the latter ought to have been Tamil, the oldest of all languages of South India.

It is worth recalling here the observations of Zvelebil to strengthen further the argument of the Dravidian Origin of the Indus script and their impact on the writing system of the Dravidians. He observes that "there must have been sometime in the fourth to third millennium B.C. a common centre of diffusion, a strip of land extending possibly from Eastern Africa or Southern Arabia through the Persian Gulf to North Eastern Iran of the Black and Red ware folk of the Proto-Dravidians and that the South Indian incisions (Graffiti) may be remains of writing which the Dravidians brought with them in a degenerate, impoverished and fragmentary form from the large cities of the Harappan Civilisation"[10a].

4. Long ago Heras, recently Parpola, Mahadevan and others have made attempts to read the Indus signs with the help of the Proto-Dravidian etymology. The sustained and painstaking researches of these scholars and their convincing arguments to identify the Harappans as the Dravidian have tempted the present author to take a dip into the ocean of their arguments and come out with tremendous enthusiasm and remarkable confidence to follow their foot steps to the vexed problem of reading the graffiti as done in the foregoing pages.

Besides graffiti tradition, the recent excavations in South India more particularly in Tamil Nadu have blessed us with enough material evidence in our endeavour to identify the cultural traits of both regions.

The following are the clues picked up from the study of the archaeological finds from recent excavations conducted in Tamil Nadu which recall the traits of the Indus Valley culture. The clues are in the form of certain antiquities and structural remains which are common to the Harappa culture and the Iron age culture of South India[11]. They are as follows :

5.a) **URN BURIALS AND URNS WITH GRAFFITI MARKS :**

The Urn Burial is as old as the Neolithic period in South India. Urns with graffiti marks form part of the Iron age culture. They even serve as criteria to distinguish the South Indian Iron age burials. Urn burials were also practiced by the Harappans. These urns also bear graffiti. Secondly, pit burial with grave goods and stone appendage was also not unknown to them. The excavations at the Harappan site Surkotada in Kutch have revealed this information. Grave goods in the form of small pots and vessels have been collected. But no iron was found. (In South Indian Megalithic burials these grave goods are a common feature).

b) Black-and-red ware is the chief ceramic industry of the Iron age communities in the South. This pottery has been collected from Harappan sites like Lothal, Rupar, Amri etc. In these sites the pottery forms part of the cultural complex of the Harappans.

c) There are certain pottery shapes common to both cultures. They are (1) multiple pot (found at Yelleswaram, Uraiyur and Nilgiri megalithic burials), (2) dish-on-stand and ring stand (found at Tirukkampuliyur and in megalithic burials all over the South) (3) spouted bowl, the spout being luted at the bottom (found at Korkai) and (4) a few more shapes like shallow bowls, trays, **lota** etc. (collected. from burials by Anglade and others).

d) Ring wells were used in both regions - particularly in Kanchipuram there are hundreds of such ring wells buried in the river beds and on the banks of the Vegavati river on which the city was raised.

e) The Harappans knew the use of horse as evidenced from Surkotada excavations. The Iron age people of South India also used horses as seen from the rock paintings as well as from the horse bits collected from their burials. Besides, the Sangam literature contain references to the import of horses.

f) The structural remains of the Harappans exhibit a variety of bricks which are of massive size measuring 39 cm. x 19 cm. x 7 cm.

Such bricks were also used in Tamil Nadu as evidenced from the excavations at Kanchipuram. These bricks were used in the construction of a Buddhist structure at Kanchipuram datable to 3rd Century B.C.

g) The numerous bronze objects found at Adichchanallur and Kodumanal indicate the high proficiency they attained in the field of bronze castings. The Harappans also possessed remarkable degree of proficiency in the field. Bronze is a rare object in other sites in the South. It is due to the fact that bronze was very scarce in South India.

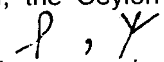
h) The study of the skulls of the Harappans and of the Neolithic and Iron age people of South India is still in its infant stage. But one thing is certain. Among the Harappans, there were different ethnic groups or races like Mediterranean, Proto-Australoid etc., as suggested by a recent study of the skulls from the Harappan sites. The Mediterranean stock seems to occur among the Kallars of South India. The Proto-Australoid characters may be seen in the jungle folk of South India like Kadars, Kurumbars etc. Further, the study of the Adichchanallur skulls has revealed that they belong to the Dravidian stock. It may be mentioned that much cannot be said about the racial groups pertaining to these two cultures, as very little has been done in this direction. We cannot say anything boldly as it requires a sound knowledge of physical anthropology. For the present, it will suffice if we could say that the ethnological studies bring certain ethnic groups among the Harappans very close to the Dravidians.

i) It has been reported by Sankalia that one of the terracotta dancing figures 3" high from Harappa bears resemblance to our South Indian Nataraja of Cola period. This needs further study.

6. The theory of evolution of Brahmi from the Indus script was pronounced by Hunter[12] and his hypothesis has been receiving greater attention at the hands of Modern scholars like K.V. Soundararajan and a host of others. This theory is not rejected altogether and still alive and awaits confirmation depending upon the fresh discoveries. It has also been shown in

Chapter VIII how the Indus script would have influenced the formation of Brahmi script by transmitting certain select signs through the graffiti tradition.

The Maharaja Kadai painted letters though appear to be like Brahmi are to be classified as graffiti consisting of Indus signs, Brahmi like letters and graffiti marks. As said earlier these letters are in the transtition stages from the Indus sign-cum-Brahmi-cum graffiti characters ie. the Proto-Brahmi to Brahmi (Fig. 13-c).

7. As mentioned earlier, the Ceylon seal with Brahmi letters and the two Harappan signs  is yet another evidence to the perculation of the Harappan signs into the writing system of the Dravidians, who are said to have established their settlements in Ceylon in the beginning of the 1st Millennium B.C.[13].

8. Last but not the least is the find of ligatured graffiti in South India, more particularly in Tamil Nadu which are reminiscent of the inscribed sherds of the Harappans reported from Harappan sites like Harappa, Lothal, Kalibangan and so on and so forth.

These ligatured graffiti will certainly set in motion the wheel of the theory of Dravidian Origin of the Indus script.

Long before our era, Moris Courtillier[14] pronounced that "the Dravidians enjoyed a culture of their own and their commercial relation with the west, Mesapotamia and Egypt which had begun in the very early days continued down to the disruption of the last forces of the Roman Empire. The wider distribution of the black and red ware tradition, the presence of the Hawk-Beaked figure in the rock paintings of Kilvalai and Dharmapuri, the occurrence of numerous common graffiti, the pottery head rest in the megalithic levels at T'Narasipur and the find of thousands of Roman coins in South India more particularly in Tamil Nadu bear testimony to the observations of Moris Courtillier. Therefore it seems that South India more particularly Tamil Nadu played a key role in that early complex mixture which shaped the civilised world before the advent of the Greeks. According to our study it may be said that South India must have been one of the earliest centres of Human Civilisation.

REFERENCES

1. The similar triangular headed figures are seen in the Rock Paintings of Madhya Pradesh.

2. The crescent moon is shown by the side of the sun e.g. Tirukkampuliyur

3. The cross is identified as sun as it is shown by the side of crescent moon (2) (eg.) Jadigenahalli.

4.&
4 a) These readings are given by Heras.

5. The superimposition is suggestive of the beginning stage in the formation of a new script.

6. See Chapter VIII for more information

7. **Purananuru**, 2

8. Rev. Heras, **Op.Cit** Pl.5

9. Hall, **The Ancient History of the Near East - PP. 173-174**

10. See Chapter VII for more details

10. a) Kamil Zvelebil, "Harappa and the Dravidians - An old Mystery in a New LIght", **New Orient,** IV:3 (1965), PP. 65-69.

11. S. Gurumurthy, **Op. Cit** PP. 143-165

12. G.R. Hunter, **The Script of Harappa and Mohenjodaro and its connection with other scripts**, London, PP. 1-2

13. Indrapala, "Is it Indus-Brahmi Epigraph?" **The Hindu** Dated 26th April, 1981.

14. Moris Courtillier, **Les Anciennes Civilisations** De l' Inde. PP. 111-112.

❖ ❖ ❖ ❖ ❖

VIII. GRAFFITI AND ANCIENT SCRIPTS OF INDIA

A. GRAFFITI AND THE INDUS SCRIPT - THE RELATIONSHIP

The important task in the study of Indus script is the collection of all available material and this has been done in recent years with constant improvement by scholars like Mahadevan, Koskenniemi, Parpola, S.R. Rao, Krishna Rao and others. But there is still scope for some more collections of data from recent excavations in the Late Harappan sites and even Non-Harappan sites.

There are about 4200 Indus seals and inscriptions coming from different sites. Of these, 2090 from Mohenjodaro, 1490 from Harappa 240 from Lothal, 140 from Kalibangan, 83 from Chanhudaro and 44 from different sites in North East. According to Parpola, there are 2200 different inscriptions and all these inscriptions are very short. The longest of them has 26 signs. It is a text on an amulet of three sides. But the longest text on any single side of a seal has 17 signs in three rows[1]. The average length of an inscription has five signs; there are also good number of seals with two or three signs.

The graffiti have been also reported from the above mentioned sites. They occur singly or in association with other signs. But in the early stages of the study of the Indus Texts, the inscriptions on the pottery have been nomenclatured as "Graffiti" only. But they are not graffiti at all. They constitute the so called Indus script. However, there are a very few graffiti (with Non-Indus signs) noticed alone or along with Indus signs in the Harappan sites and they are included in our present work. This noteworthy feature of the Indus culture deserves special mention as the graffiti have been reported in large numbers in the Pre-Harappan sites and Post-Harappan Chalcolithic sites. This may be explained as follows: The occurrence of less number or countable number of graffiti (with Non-Indus signs) in the Harappan site may be largely due to the emergence of the Indus script and its wider usage by all sections of people including common folk who scratched the Indus signs on their earthern ware

vessels. But the situation in the Post Harappan Chalcolithic periods were altogether different as there was completely a vacuum created by the abrupt discontinuation of the Indus script.

In the Pre-Harappan period also there was no evidence for the usage of any sort of script excepting the graffiti. But the usage of graffiti was relegated to the background in the Indus period on account of the emergence of the script.

But in the post Harappan Chalcolithic scenario once again the graffiti tradition asserted its role to fill up the vacuum created by the disappearance of the Indus script.

As said earlier, this practice has gathered momentum in the subsequent Pre-Iron age or early Iron age in South India. Here again it is noticed that the practice did not find favour with the Iron age people of North India as there is paucity of graffiti on the pottery of North Indian Iron age sites barring few exceptions (ie. the NBP levels in a few sites yielded a few graffiti (Table III).

Besides seals, a considerable number of seal impressions on clay have been discovered. Most of these are tags attached to the bale of goods. Such clay bullaes have been also reported from Lothal. These tags bear single or multiple seal impressions. Another category of Indus text consists of small tablets of various shapes and materials. They were engraved on flat plates of steatite from Harappa or on copper from Mohenjodaro or they were moulded on terracotta and faience. These tablets very often carry inscribed texts and rarely bear pictorial motifs and they may be called amulets with one or more than one side bearing such motifs. Bangles with inscriptions have also been reported from Mohenjodaro. The copper or bronze tools bear numbers alone or with other texts. It is not known whether they are inventory numbers or do they record the weight of the object concerned? An interesting object ie. blade axe from Mohenjodaro bears a sequence of seven signs besides numbers. There is also a broken stone slab with an inscription discovered.

The pottery vessels form an important category of inscribed object. Stamped seal impressions are seen on the pottery vessels; some big storage jars carry inscriptions at their base. Pre-firing as well as post-firing graffiti are not unknown to the Harappan people. The numerals are also scratched on the vessels mostly on the rim portions. Such marks are also seen on the body of the vessels. But these graffiti may be labelled or termed "Potsherd Inscriptions" or "Inscribed Pottery" rather than "Graffiti"[2]. At the same time as said earlier there are a few graffiti representing simply signs or symbols alone or in groups and they do not constitute the Indus script fully or partially. They may be compared with the Pre-Harappan or post-Harappan Chalcolithic or South Indian Iron age graffiti (Table IV).

Yet another interesting feature is the similarity noticed between the Indus signs or letters and the graffiti of the Pre-Harappan and Post-Harappan Chalcolithic and South Indian Iron age cultures. Among the latter a large number of graffiti from the Iron age sites of Tamil Nadu could be matched with most of the basic signs of the former. These graffiti as shown earlier (Figs. 39-49) occur either alone or as ligatured graffiti with more than one symbol. But their size in most cases is strikingly larger than the size of the Indus signs. Only a few have the "Letter Size".

Lal has drawn our attention as early as in 1962 to the similarity between the Indus signs and the graffiti of the subsequent periods. He has spotted out as many as 56 such signs or their variants bearing close resemblance to those of the graffiti of other periods. Since then, hundreds of new sites have been excavated and several hundreds of graffiti of different characters have been reported. These sites have yielded the bulk of graffiti throwing light on the significance of graffiti in the day to day life of the people. When Lal published his paper most of the South Indian graffiti referred to by him were drawn mostly from sites like Arikamedu, Brahmagiri, Maski, Porkalam, Sanur, Kunnattur and Amirthamangalam besides collections of Hunt and Yazdani.

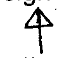
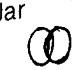
But the present author has the advantage of studying the South Indian graffiti from numerous excavated sites with their stratigraphical context and well established chronological frame. For instance, certain sites like Tirukkampuliyur, Alagarai, Vallam and Kodumanal which enabled the present author to equip himself with substantial volume of material to make an attempt to compare the South Indian graffiti with the basic signs of the Indus script. There are 120 graffiti similar to Indus signs. In other words, it may be said that nearly 25% of the Indus signs has perculated into the South Indian Iron age graffiti fabric.

The graffiti thus exposed and collected have given a new dimension to the significance and meaning of graffiti and their relevance to the decipherment of the Indus script. Since no bilingual or multinlingual texts have been found, the decipherment of the Indus script has not made much progress inspite of serious attempts made by scholars like Asko Parpola, I. Mahadevan, S.R. Rao, Krishna Rao and others. Further, it is believed that the Indus people would have certainly recorded economic accounts and other information on perishable materials such as palm leaves, the traditional writing material of the scribes. This is another handicap for the decipherment work. Therefore at this juncture, the find of thousands of graffiti had whipped the present author to prepare a concordance of such graffiti. This will be of some use for the scholars in their difficult task of the decipherment of Indus script.

It is believed that the potters' marks on the neolithic ceramics are the fore runners of real writing in most of the foreign countries. These are found as early as 5th Millennium B.C. in Su Siana, Western Iran, and prior to the emergence of Proto-Elamite writing.

As said earlier there are numerous potters' marks seen on the Pre-Harappan, Early Harappan pottery from Balakot in Pakistan, Damb Sadaat I-III and other sites in Quetta Valley.

Most of these marks seem to be numbers and those on the pottery of the Harappans consist of such numbers[3]. It is interesting to observe

that the Indus valley graffiti representing numbers have been evolved from the potters' marks done by finger nails. For instance the semi-circle seen in the Indus script is suggestive of number ten or tens. Similarly the most common and characteristic sign to the Indus script namely the Jar  and the spear head  and the intersecting circles  are seen as graffiti or potters marks on the Pre-Harappan pottery.

Therefore the potters' marks or the graffiti existed throughout the vast area in the Indus valley region many centuries prior to the emergence of the Indus script. The possibility that these marks would have been adopted as graphemes in the script cannot be ruled out altogether. Since the Indus script was created independently within a short period of time, these marks and certain graffiti could have been picked up by the Harappans for inclusion in the script. Moreover the Indus script cannot be derived from any other known script of the times as the script was already fully developed and standardised as early as the 26th Century B.C.

It was believed that the Indus script was forgotten after the fall of the Indus civilisation. However at Daimabad the script seems to have survived upto the end of the 2nd Millennium B.C. The discovery of numerous ligatured graffiti with Indus signs in the Chalcolithic and South Indian Iron age sites (Figs. 35-38) is suggestive of almost the rebirth or survival of the Indus script in Deccan and South India. Therefore, the Indus script did not die at Daimabad but survived under the earth for several centuries and the last breath of the Indus script was let off in South India more particularly in Tamil Nadu. It was allowed to have a peaceful death in the soils of the Dravidians who are supposed to have been the authors of the script. Whatever may be the route, the script travelled all along to reach South India, the Dravidian country; destiny has brought it to this land and the providence was in its favour to allow it to have its last breath in South India, the land of the Dravidians.

The Iron age graffiti (Figs. 39-49) from South India may be interpreted as an off shoot of the Indus script, but before that it has to be established

or atleast explained whether these graffiti constitute wholly or partly any script at all. This has been explained in earlier chapters.

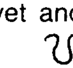
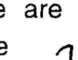
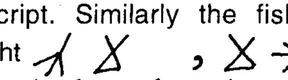
The Indus signs have been equated with similar looking signs in other archaic scripts and read with their phonetic values[4]. But these readings fail to make good sense because one and the same sign is given different values and one and the same value is assigned to different signs. These attempts have been made only to advance our knowledge about the problems of the decipherment of the Indus script. In this way the graffiti could have been equated with similar looking signs or letters in the Indus script but the former could not be read as the signs in the Indus script have not yet been satisfactorily interpreted.

There is no doubt that the Indus script remains as the earliest form of real writing in India and may be considered as a Morphy Morphic (logo syllabie). In the script, the pictographic sign may denote the object represented by it or it may denote any of the words or morphomes of the language underlying the script which were phonetically similar to the word naming the depicted object. Therefore unless the individual signs are deciphered the Indus script will remain undeciphered.

But there is yet another problem, most of the Indus signs are so simplified that their pictorial meaning could not so easily be extracted. However, there are a few pictographs whose forms are clearly identifiable and they could provide some clues as to the nature of the script as well as to the processes of decipherment. Among the graffiti also there are a good number of symbols whose forms are identifiable and their pictorial meaning may be read. These symbols, if stylised and simplified could not afford evidence or clues to their identification and meaning. But a careful and close examination of these graffiti may throw some light on the identification of the simplified and stylised signs of the Indus script; ie. the process or stages of simplification or stylisation or symbolisation of such signs could be traced or detected. But it is not so easy to trace the process of simplification of these graffiti. However, it could lead to deliver some hypothesis regarding the formation of the graffiti like signs percolated into the Indus script.

Therefore a comparison of the graffiti and signs or symbols that look alike or slightly variant in the Indus script has been attempted in the present work and it could help scholars to pronounce fresh hypothesis about the decipherment of the Indus script. It is hoped that the comparative study will certainly add new dimensions to the problem of the decipherment of the Indus script, because the single graffiti marks representing Indus signs could be taken as a letter forming part of the Indus script. Therefore they have some significance.

For instance the fish symbol is read mīn which stands for the word star in the ancient Dravidian Literature. Similarly numbers as many as six preceding the fish sign may give the reading as **aru-mīn** in Tamil (Six stars). The six star group was a familiar theme of the ancient Tamils and this theme has been shown in the Indus script. The graffiti representing fish has been frequently met with and it may be read and be given the same value or meaning as said above. But this fish sign occurs alone or in association with other signs both in the Indus script and graffiti and their meaning are subject to modifications and various interpretations. The identification has also been accepted by Soviet Scholars and by Mahadevan.

A ligatured graffiti from Korkai Justifies the reading (Pl. XII-3). Here the **mīn** is shown in a lower plane and the star at a higher plane. The fish here means the star shown in the higher plane (ie. sky). The same pair has been also noticed in Kodumanal. This may also stand for the word Arumīn (Six star). As these two symbols may stand for Mīn and numeral six respectively. Similarly, yet another most common sign in the Indus script is the so called jar sign  . There are many variants of this symbol in the Indus script itself. However, the jar symbol is rarely met with as graffiti. There are only two occasions where it could be located and that looks like  the Brahmi letter la. This sign has been identified as head (**Maṇḍai** or **Talai** in Tamil) and the value **ma** or **talai** is given to this sign (Chapter V). This identification may help to assign value to this sign in the Indus script. Similarly the fish is accompanied by the numerals four and eight 
Here the technique of showing the numerals in the form of star is unique

and rare and represents the South Indian genius. And they may be read as **Nānmīn, Eṇmīn** standing for four stars and eight stars respectively. The significance of these star groups is yet to be realised. This star symbol seldom occur in the Indus script.

Similarly, the graffiti identified as natural pictographs, conventional pictographs or ideographs and logographs earlier in Chapter VII may be equated with such of those signs in the Indus script and values may be assigned.

These readings would lead one to ponder over the theory of the Dravidian origin for the Indus script. The similarity between the Indus signs and the South Indian Pre and Early Iron age graffiti may lend colour to this theory. Further, the ligatured graffiti with Indus signs from South India proves beyond any ray of doubt that the Dravidian (Tamilians) are the descendents of the Harappans. This has been demonstrated with substantial evidence in Chapter VII. But there is a limit to this approach.

This is how the graffiti can come to our help to render meaningful reading of the unreadable Indus signs.

B. GRAFFITI AND BRAHMI - THE RELATIONSHIP :

Out of a total of 513 prominent graffiti there are about 72 which have been picked up on the basis of the similarity with those of such Brahmi letters of either South Indian or North Indian characters (Figs. 50, 51). These signs occur alone or in association with other signs. as ligatured graffiti. These graffiti have been reported from the Iron age, Chalcolithic, Harappan and Pre-Harappan levels. However, those from South Indian Iron age context had out-numbered those from other cultural contexts (Table IX).

Iron age level : It may be borne in mind that such of those marks reported from the Iron age levels may be taken to stand for Brahmi letters on their face value. The reasons for such identification are given below :

GRAFFITI :

1. Their size is that of an ordinary letter of an archaic script or slightly bigger, but they are boldly drawn on the vessels.

2. Most of them belong to a period or levels dated from 300 B.C.-200 A.D. or even earlier. But this chronology needs revision on the basis of our hypothesis pronounced in the beginning of the present work in Chapter II.

3. There are also instances where they have been found in association with Brahmi inscribed sherds. Hence there is every possibility that the potters or the authors of these marks could have picked up such of those letters that could have suited their purpose such as to record their initials or the shortened form of their names or clans or associations etc. In such cases, we could presume that the Brahmi script was familiar with the people of those areas. Therefore these graffiti may be identified as Brahmi letters and read.

4. There are still a few which were reported from the Pre-Brahmi stratified deposits of the Iron age sites wherein both the inscribed sherds and graffiti are reported. In such cases, the graffiti may be termed as Brahmi letter like signs and which could be the source of information for the potters or owners is a matter of guess. They could have probably picked up these marks either from the Pre-Harappan graffiti or the Indus script or from any other archaic scripts or graffiti found outside India known to them or heard by them. But this will become true only when these marks are identified with the graffiti or letters in the scripts of such countries. A few Brahmi letters have parallels in them (Figs. 52-55). The analysis tends to establish the existence of such contacts between people of different cultures or of different countries or regions, but the problem is that our Pre-Brahmi graffiti are separated from the Pre-Harappan and the Indus and other archaic scripts and graffiti in time and space. Though there is a vast gap of time and space, they could be

narrowed down as suggested earlier in Chapter II. For this it may be explained that the South Indian early Iron age people would have received the ideas or letters from those of such materials either through the migrants or migration of ideas. This is borne out by the fact that there are as many as 135 graffiti which have exact parallels in the Indus signs and (Figs. 39-49) a fairly good number of them are analogous to the letters of the ancient scripts and graffiti of many other countries (Figs. 17-24). There is another possibility that these graffiti of the Pre-Brahmi levels could have formed part and parcel of an archaic script other than the Indus script which could have been in practice in India or more particularly in South India in the Pre-Iron age. This has been demonstrated earlier in Chapters VI & VII.

5. Graffiti are also reported from sites where inscribed sherds are completely absent. There are more than half a dozen sites in South India where this phenomenon is noticed. The sites are Tirukkampuliyur, Guttur, Mallappadi, Maski, Brahmagiri, T. Narasipur etc. It is interesting to note that Tirukkampuliyur which yielded a bulk of graffiti does not bear any evidence for the use of Brahmi script on the pottery in that site, but the Brahmi letter like signs are seen among the graffiti in a considerable number (Pl. XIV). This does not mean that Brahmi script was not known to the potters of the site. It may be presumed that the Brahmi script was not familiar with the common folk of the region to that extent to warrant them to use it on the pottery. But it is interesting to observe that another site Alagarai which lies hardly 10 Kms. from Tirukkampuliyur has produced a feeble evidence for the use of Brahmi on the pottery in that area. According to the excavator, a fragmentary sherd with two pre-firing Brahmi letters has been recovered from this site[5]. Though the signs appear as Brahmi letters, their morphology or even palaeography bring these signs very close to the graffiti rather than Brahmi. They are pre-firing, very thick and deeply cut and on palaeographical grounds, this sherd may be one of the earliest inscribed sherds of the Proto-Brahmi script, introduced into Tamil Nadu. The levels which yielded

this sherd may be assigned to 3rd Century B.C. or even earlier. This dating is earlier than that of the inscribed sherds reported from Arikamedu and other sites. The Alagarai signs may be taken to represent the transition from the graffiti to the Brahmi letters or these signs could be taken for Proto-Brahmi signs.

The Brahmi script seems to have captured the imagination of the common people in this area, subsequently as evidenced from the collection of considerable number of inscribed pot sherds from sites such as Uraiyur, Karur etc. located in the same region. But at this juncture one should bear in mind that Uraiyur and Karur are town sites or urban centres and therefore elites among the common folk or the traders or the religious personalities living in these areas would have been responsible for the adoption of this script on the pottery in this region. This is strengthened by the fact that other town sites like Kanchipuram, Arikamedu, Kodumanal, Vallam etc. have yielded the inscribed Brahmi sherds in a considerable number.

Further a few ligatured graffiti from the above mentioned sites exhibit the mixture of Brahmi letters and graffiti or super imposed Brahmi letter like signs as the case may be thereby throwing some clues into the introduction or the evolution of Brahmi script on the pottery in this regions. It is a known fact that there are a considerable number of cave inscriptions of Brahmi characters found in and around this region and their date has been fixed not earlier than the 3rd Century B.C. But the inscribed sherds and the ligatured graffiti from the same region may not be coeval the and the latter may be assigned to a date earlier than the 3rd Century B.C. on the basis of the pottery types. For instance the pottery like the dull thick red ware, the thick black and red ware bearing graffiti and Brahmi letters may be assigned to a period earlier than 3rd Century B.C. The chronology of these wares in the lower Kavery Valley region[6] may be slightly earlier than that of the other sites like Arikamedu, Kanchipuram etc., where from also came a good collection of graffiti and inscribed pot sherds.

Therefore the study of individual graffiti, ligatured graffiti and the Brahmi letters like graffiti suggests an earlier beginning for the Brahmi Script in South India more particularly in Tamil Nadu. In majority of the sites, the graffiti was in use even after the introduction of Brahmi script upto 3rd Century A.D. Since then, the tradition of graffiti was discontinued as evidenced from the pottery of the early medieval times ie. 3rd Century A.D. onwards in sites like Tirukkampuliyur, Kodumanal etc. The graffiti from the post-Brahmi levels seem to have been the survivals of the early Iron age and the number of such graffiti reported has slowly and steadily decreased and the inscribed sherds made their apearance in a considerable number since first century A.D. as seen in sites like Arikamedu, Uraiyur, Karur, Kodumanal, Vallam etc.

6. Tracing back the history of the graffiti, as Lal has indicated they may go back to the Harappan times. The present study takes it further back to the Pre-Harappan times. It is worth considering at this juncture the Brahmi letters such as **ē,ō,Ka,Ca** are exactly the same as graffiti in the Pre-Harappan sites.

Coming to the Chalcolithic period, the graffiti tradition has once again reared its head and a good collection of them was made in sites like Rangpur, Daimabad, Navdatoli etc. A comparative study of the graffiti from the Iron age sites in Soutn India with that of the Chalcolithic, Harappan and Pre-Harappan sites tend to suggest some relationship between them (Table IX) (Figs. 50-51).

There are also a few simple or compound or ligatured graffiti which could be identified as Brahmi letter like signs. In a few cases signs are superimposed and the superimposed signs could be split into two or three and could be identified. It seems that the Pre-Harappan and Chalcolithic graffiti had influenced the South Indian Iron age potters' thinking and as a result a number of graffiti of the former cultures made their appearance on South Indian Iron age pottery. This fact shows the existence of some sort of contacts between the people of the different cultures that

flourished in different regions far removed in space and time. These graffiti have supplied enough signs for the South Indian Iron age people to reproduce them exactly on their vessels or to modify them to suit to their culture and purpose and to evolve some sort of a primitive system of writing or a pictographic writing to communicate with the people of the Chalcolithic and Pre-Harappan regions. This is amply borne out by the location of a considerable number of ligatured graffiti consisting of common signs. The identification of this system is very difficult but it could be said that the graffiti of these periods could have certainly contributed certain signs to the formation of South Indian Brahmi script, either directly or through the Proto-Brahmi script. The morphology of certain graffiti also suggests that they could have been part and parcel of some sort of an archaic script or atleast pictographs or ideographs or Proto-Brahmi or Brahmi after the disappearance of the Indus script. According to one school of thought the Brahmi letters are the natural development of the Indus Valley signs[7]. But the problem is that hundreds of years had rolled down from the time of the Harappans till the time when Asokan inscriptions were introduced on the rock surfaces and pillars. Hence this suggestion cannot be accepted for the present. The similarity between the Indus signs and the Brahmi letters may be accidental.

But the location of nearly 72 graffiti resembling most of the Brahmi letters ventures to float the hypothesis that the graffiti tradition of the Pre-Iron age, the immediate predecessor of the Brahmi script (rather than the distant predecessors, the Pre-Harappan graffiti or the Indus script) could have acted as a catalyst to systematise the formation of the Brahmi letters either directly or through the Proto-Brahmi script referred to earlier. This is strengthened by the Maharajakadai painted letters. These painted letters which appear as Brahmi letters are to be classified as graffiti and not as pure Brahmi. These letters are in the transition stage from graffiti to Brahmi as noticed at Alagarai. These painted letters seem to have formed part of a script of the Pre-Brahmi period. Based on this it may be said that the graffiti of the Pre-Brahmi period or the Pre-Iron age may be the progenitor of the so called Tamil-Brahmi of South India. This script has been termed as Proto Brahmi or Tamil Script.

There are other theories put forward by eminent scholars for the origin of Brahmi script in South India. According to Mahadevan and Nagaswamy the Tamil Brahmi was the adoption of Asokan Brahmi or was contemporary with it[8].

T.N. Subramanian expressed the view that the Tamil Brahmi script should have been designed for a Dravidian language, very likely Tamil and later on adopted for Prakrit. He has assigned the date of 3rd Century B.C. to the Script[9]. K.G. Krishnan also held the view that the Tamil Brahmi was independently existing. He has further observed that a stage can be envisaged when a basic Brahmi alphabet was probably in use all over India[10]. K.V. Soundararajan thinks that Tamil Brahmi was co-existing with Asokan Brahmi and for both scripts there was a common script, devised out of a fused Aryo-Dravidian. He further feels that the common script could have been existed during the period from 950 to 600 B.C.[11].

A careful analysis of the abovementioned theories particularly the theory of T.N. Subramanian, K.G. Krishnan and K.V. Soundararajan clearly demonstrates the possibility of the existence of a Proto-Brahmi script all over India including Tamil Nadu during the period earlier than 3rd Century B.C. or earlier than the introduction of Asokan Brahmi. The present author fully shares the opinion of the scholars.

Further the present study of graffitology takes the present author to the possibility of declaring the existence of a Proto Brahmi script atleast in South India prior to the Introduction of Brahmi script. In other words it may be declared that the graffiti of the Pre-Brahmi and Pre-Iron age period may be the progenitor of the Tamil Brahmi script and this has been demonstrated earlier in Chapter IV. The Proto-Brahmi may be the script of Tamil Nadu of that period ie. Pre-Sangam age and it may be also termed as Tamil Script for the present.

REFERENCES

1. Asko Parpola, "The Indus Script, A Challenging Puzzle" **World Archaeology**, Vol.17, No.3, 1986, PP. 400-403.
2. S.R. Rao, **Op. Cit.**
3. Asko Parpola, **Op. Cit.**, PP.404-406.
4. S.R. Rao, **Op. Cit.** See also Krishna Rao, **Indus Script Deciphered,** New Delhi, 1982.
5. D.R. T.V. Mahalingam, **Op. Cit.**, PP.310-311. The other sherd with the sign **Ka** mentioned by him looks like a graffiti rather than the Brahmi letter **Ka**. The excavator assigns a period from Ist century B.C. to 4th Century A.D. to these sherds. But a close scrutiny of the sherd suggests an earlier date. As he has himself admitted that they have been found at comparatively lower levels in the trenches and have to be assigned a fairly early period.
6. S. Gurumurthy, **Op. Cit.**, PP.103-128 - Also see, "Recent Archaeological Investigations and Tamil Culture". **B.I.T.C.**, 1976, PP.143-185. This is based purely on the personal observation of the sherds and their associate finds by the author himself.
7. G.R. Hunter, **Op.Cit.** PP.12, 21 and 49.
8. **Origin, Evolution Reform of the Tamil Script, Papers** published by the University of Madras, 1983. Also see S.P. Gupta and K.S. Ramachandran, **The Origin of Brahmi Script,** PP.81-83.
9. **S.I.T.I.**, Vol.III, Part II, PP.1600-1601.
10. S.P. Gupta and K.S. Ramachandran **Op.Cit.** P.69.
11. **Ibid.**, PP.63-65.

IX. THE ORIGIN AND DISTRIBUTION OF GRAFFITI IN THE ANCIENT WORLD

We have discussed in Chapter VI, the origin and evolution of numerous archaic scripts in the ancient world and their relevance or resemblance to Indian Graffiti. Let us now examine the distribution of graffiti in the various countries which served not only as cradles of human civilisation but also pioneers in the field of graffiti tradition. The graffiti from select countries like China, Egypt, Greece, Ceylon and Japan have been chosen for understanding their true characters and significance. Further, it was felt that a comparative study of the graffiti from the above mentioned countries with those from India will be of some use to explain the meaning of such graffiti in India. With this in view a comparative chart has been prepared and given in Figs. 52-55. The chart carries the common graffiti among these countries including India.

CHINESE GRAFFITI :

The Neolithic period in China is represented by the following cultures:

1. Yang Shao Culture (4800-4000 B.C.)

2. Ma Chia Yas Culture (2700-2000 B.C.) and Liang Chu Culture (3rd Millennium B.C.). The principal sites excavated and intensively studied are Pan P 'O' Village, Panshan, Ma Chang, Linwan, Lethusien and Langu Chu. All these neolithic sites yielded typical neolithic pottery. The graffiti or pot marks[1] on the neolithic pottery have been also categorised according to their chronology. The principal neolithic sites and their chronology and the graffiti collections are given below :

CULTURE	SITES	CHRONOLOGY	NO. OF GRAFFITI
a) Yang Shao Culture	Pan P.O. Village	4800-4000 B.C.	13
b) Ma Chia Yas Culture	Pan Shan Machang	2700-2000 B.C.	19
c) Ma Chia Yas Culture	Liuwan & Lethuhsien	2400-2000 B.C.	11
d) Liang Chu Culture	Liang Chu	3rd Millennium B.C.	9

There are more than 50 graffiti reported from these sites which are very similar to our Indian graffiti.

The graffiti include vertical and horizontal lines, plus, cross marks, two and three pronged arrows, swastika, comb, triangle, circle, square, wheel, mountain and damaru: A few of them resemble Brahmi like letters such as **ka**, **u o**, **pa**, **ta**, **ha**, **ru**, etc.

The comparative study of Indian and Chinese graffiti indicate that there are a large number of similar graffiti in both traditions. (Figs. 52-55).

EGYPTIAN GRAFFITI (ARCHAIC PERIOD) :

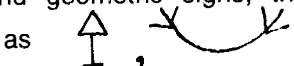
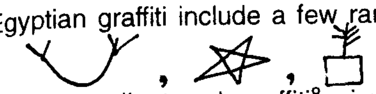
Excavations conducted by various scholars and agencies have brought to light abundant material to understand and appreciate the culture of the people of the Ancient Egypt, who lived during 3000 B.C. and 1000 B.C.

Massive structures, magnificient artefacts, mysterious grave tombs and their rich collection of typical Egyptian antiques, exquisitie pottery, wonderful paintings on the walls, informative inscriptions on the clay seals and walls make Egyptology as the richest branch of world Archaeology.

Among the Egyptian artefacts, pottery have special significance not only because of their deep antiquity, date and excellence in making but also for their possession of great varieties of pot marks and graffiti which throw a flood of light on the early palaeography or Origin of Writing in the Ancient Egypt.

EXCAVATIONS :

Excavations at various places especially at Sakkara[2] have yielded large number of graffiti bearing pot sherds. Further, the excavations at the tombs Nos. 3503[3], 3504[4], 3505[5], 3506[6], 3507[7], have produced large number of pottery with marks. The marks are mostly inscribed on the exterior of the large jars. They are marked either singly or in groups.

Some of the pot marks are similar to the graffiti found on the ancient Indian pottery. Besides the common linear and geometric signs, the Egyptian graffiti include a few rare symbols such as  . These have their parallels in India. There are many ligatured graffiti[8] similar to those found in India. Hence, the above said similarities cannot be taken lightly and need detailed examination. The Egyptian graffiti also come closer to the South Indian Iron age graffiti (Figs. 52-55).

The similarity in graffiti lends proof to the existence of contacts between these two countries right from the very beginning of the Dynastic rule in Egypt as early as 4th Millennium B.C. These contacts seem to have been a continuous process down to the Pre-Iron-age in South India, as evidenced from the Kilvalai and Dharmapuri paintings earlier discussed.

In the foregoing discussion only some select sites have been chosen from among the prominent sites excavated in Egypt to focus the attention of the archaeologists on the need for further probing in the subject of comparative Graffitology.

Egyptian pot marks and graffiti are voluminous in quantity and therefore it is very difficult for Indian archaeologists to dive deep into the ocean of the Egyptian Graffitology.

GREEK GRAFFITI :

Excavations conducted at various places by the classical archaeologists yielded rich collection of antiquities which bear testimony to the deep antiquity of the Greek civilisation. The excavations at Olynthus[9] have yielded few earthernware vessels bearing graffiti; potsherds with archaic Greek inscriptions too have been reported from many sites. There are morphological similarities between the graffiti on Indian pottery and the Greek graffiti (Figs. 52-55). The graffiti have been found either singly or in groups. They include symbols like the boar, comb, mango fruit like designs besides Brahmi letter like signs such as **ra, ta, da** etc.

The sherds bear the signs mostly on the rim portion as seen in South Indian inscribed pot sherds.

SRILANKAN GRAFFITI :

Sri Lanka, our neighbouring country has a vast collection of archaeological materials which attest to the past glory of the island. There are evidences to show that both countries were culturally tied up in the past. It is reflected very rightly on their pottery recovered from the various excavations in SriLanka belonging to the Iron age habitation sites and burials.

The burials excavated in Sri Lanka especially in and around Anuradhapura have brought to light numerous pot sherds carrying graffiti[10].

Majority of the graffiti are very similar to the Indian graffiti (Figs. 52-55). Ligatured graffiti also occur on the Sri Lankan pottery.

The chronology of the Sri Lankan graffiti may be fixed between 4th or 3rd Century B.C.and 1st or 2nd Century A.D. They are coeval with our South Indian Iron age graffiti.

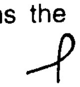
They occur on the black-and-red ware, black ware and red slipped ware of the Megalithic culture.

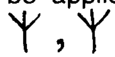
The individual graffiti represent mostly linear and geometrical designs; the stylised human figures also occur in considerable number and they recall similar figures on the Harappan wares and seals. The South Indian graffiti very rarely exhibit such stylised human figures. The fish symbol has been repeatedly seen. But the popular tree motifs, sun symbol, animal figures make their appearance sporadically. It is yet another feature peculiar to the Sri Lankan graffiti. As in South Indian graffiti the jar symbol seldom occurs.

There are a few ligatured graffiti consisting of two to four signs. The symbols in such ligatured graffiti resemble Brahmi or Brahmi like letters

such as **Ya**, **Ma**, **Ta**, **Va**, etc. This feature brings the graffiti closer to the Brahmi script as noticed in South India. Both graffiti and the Brahmi script existed side by side in Sri Lanka during the Iron age. The simultaneous occurrence of both tends to suggest that the graffiti would have played the Key role as some sort of writing in Sri Lanka even before and after the invention or introduction of the Brahmi script. This fact may drive home the point that the Brahmi script in Sri Lanka may be dated slightly earlier than the 3rd or 2nd Century B.C. More or less, the same phenomenon has been observed in south India also.

This is attested by the find of an interesting Bronze seal in the excavation of an Iron age bural site at Anaikotta[11] in Sri Lanka (Fig. 16-A). The seal carries six signs in two rows one below another. The upper and the lower rows contain three signs each. There are various readings offered to these signs. According to I. Mahadevan, the seal carries the Brahmi letters and they have to be read from right to left as the seal bears the negative impression of the signs. He has identified the lower row letters running from right to left as **Kō**, **Vē**, **Ta**, and the last sign in the left extreme of the top row as **na**. But the two other signs in the top row are left unread by him. Accordingly to him it reads as Ko, Ve, Ta na (Kōvēndan) meaning "the great ruler or Emperor". He is of the view that the other two signs in the upper row do not seem to be Brahmi letters. Further, these two signs are alike in shape. If they are not Brahmi letters, then they may have to be taken as graffiti. Even the sign on the left extreme on the top row does not look like a Brahmi letter and it may also be taken as graffiti. Therefore, it may be suggested that the upper row signs are graffiti and they may probably be substitute for the corresponding three Brahmi letters of the lower row. Then it may come closer to a bilingual script. Even then, the pair of similar graffiti on the upper row could not be satisfactorily identified as the same sign occurs twice for corresponding two different letters of the lower row.

If we believeive that if a sign has more than one meaning, then the pair of graffiti may be considered as substitutes for the two letters **Kō**, **Vē**, of the lower row. That means the same graffiti has to be read both as **Kō** and **Vē**. The third graffiti  may be the substitute for **ta** of the lower row.

Thus, the signs on the seal may be said to carry both the Brahmi letters and graffiti as their substitutes. This identification of the three graffiti has to be considered only to the composition of the script on the Ceylon seal only. The same value of each of these graffiti occurring either individually or in the ligatured graffiti in other sites either in Ceylon or India has to be applied with great caution, because the above said pair of graffiti  has been reported from Harappan sites and Kodumanal also. There is another possibility to identify all the six signs as Brahmi letters and accordingly the legend may be read. If so, they may be read as follows :

Upper row from right to left	**Ya**	**Ya**	**ma**	(m)
Lower row from right to left	**Kō**	**Vē**	**ta**	(nta)

Here, the letters are read from right to left as Mahadevan and other scholars have done earlier; but left extreme sign has been taken for **ṇa** by I. Mahadevan. It looks like Brahmi **mā** rather than **ṇa**. The **ma** has Bhattiprolu Brahmi **ma** character.

The letters may be read from top to bottom row. In ancient writing system there are instances where the scribe has incised the letters in rows starting from top portion. This feature has been also noticed particularly in a few cave inscriptions from Tamil Nadu. Since the excavation on rock surface always will begin from the top portion the scribe would have initially attempted to incise the letters from top portion. But this is not a common or usual procedure, adopted everywhere; it is rarely noticeable. Likewise, there are also instances where the letters have been incised upside down or in the reverse order. The best examples the Brahmi Inscriptions from Kilvalavu[12] and Kunnakkudi[13] respectively.

In the light of the foregoing discussion it may not be far wrong if we proceed to read the legend on the Ceylonese seal from top to bottom. There is one more point to be observed while reading the letters ie. the problem of reading the two **Ya** letters. Here the two may be read as long **Ya** (Yā) *as this is uncommon in the early Brahmi script of Tamil Nadu. Therefore, the final reading and translation of the letters of the top row*

from right to left is (Yam) meaning 'I' or 'Me' and the bottom row ie. **Kō. Vē ta** - "the Ruler or Great Emperor" (Mahārājā).

Putting the two rows together the meaning becomes "I, the great emperor or ruler or "I am the great emperor". Even today the Sri Lankan Tamil use **Yām** for 'I' or 'Me' and therefore the reading sounds meaningful. Even if the letter in the top left is taken for ṇa as Mahadevan does, the reading becomes **Yāṇ** - it is also the same meaning as **Yām** in Singalese Tamil.

JAPANESE GRAFFITI :

Recent excavations of Yoyoi, Nara Prefectare in Japan have yielded pot sherds bearing graffiti. It is an Iron age burial site. The chronology of the site is fixed between 300 B.C. and 300 A.D. The Japanese graffiti show similarities in their morphology with the graffiti on Indian pottery (Figs.52-55).

An interesting incised design[14] (probably be taken as a graffito) on a clay vessel depicting a pair of men on a boat reported from Karako belonging to the early middle period deserves special mention. The boats play a rather prominent role as a subject matter in the incisions of several tombs. Boats are incised on the walls of the rock-cut tombs at Onizuika[15], Midorikawa Kunnamoto etc. Details of incised men and boats on the walls of rock cut tomb at Takaids, Kashiwara, Osaka are also available[16]. It was believed in those days that they were associated with transporting of the soul of the deceased to another world. All boats are of usual gondola type[17].

It is interesting to observe that most of the Japanese graffiti represent the two and three pronged arrows, stylised birds, animal figures, trees and leaf patterns, horizontal wavy lines etc. These graffiti are very similar to those of South Indian Early Iron age graffiti (Figs. 52-55).

What is the significance of the similarity between the graffiti of these two countries? The similarity is not accidental but is due to some contacts

established between the Early Iron age people of South India and of Japan. However, there are not many graffiti yielding Iron age burials and habitation sites excavated in Japan which could alone offer substantial material to explain in depth the relationship. Further excavations could alone render meaningful explanation for existence of simalarity between the graffiti of these two great countries.

REFERENCES

1. William G. Boltz, **Op. Cit** P.430, Fig.3

2. Walter Emery, **Excavations at Sakkara, Great Tombs of the First Dynasty,** Vol II and III, London, 1954-57.

3. **Ibid.,** Vol. II, P.164, Fig.223.

4. **Ibid.,** Figs.100,101 and 102, Pl.81.

5. **Ibid.,** Vol.III, P.19, Pl.33

6. **Ibid.,** P.56, Pl.76.

7. **Ibid.,** P.88, Pl.III.

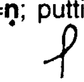
8. Walter Emery, **Archaic Egypt**, P.125, Fig.14.

9. David Robinson - **Excavations at Olynthus** (1934-38) Vol.6 (Pottery) Plates: 80-B, 89.67, 92.73, 124.9, 127.4, 210.645, 220.770, 225.847, 228.865, 235.911, 918, 919, 920 & 921; 254.1060 and 264.

10. **Ancient Ceylon**, No.2 (1972), P.123, Fig.17.

11. Indrapala, **Op.Cit. The Hindu,** 26th April, 1981. Prof. Indrapala, of Jaffna University, Sri Lanka, first discovered the seal and he has been kind enough to send me a photo copy of the same.

11. (a) According to the methodology of the present author, the reading of the three graffiti marks is to be done as follows :

 =**Iru Vēl**;  = **Min** ie.=ṇ; putting together it becomes **<u>Iru Vēlan</u>**, the name of a person. Since  comes as an end determinative.

It is given the value ṉ. In this case the graffiti may not appear as substitutes for Brahmi letters of the lower row, but seem to have been used in a different script ie. the pictographic or the Proto Brahmi. This means two different scripts are employed in the same legend and the real sense of which is yet to be realised.

12. T.V. Mahalingam, **Early South Indian Palaeography,** PP.60-61.

13. **Ibid.,**

14. J. Edward Kidder, **Japan**, PP.164-166,Pl.59 (1959).

15. **Ibid.,** Figs. 40, 411

16. **Ibid.,** Fig. '42

17. **Ibid.,** PP.164-166.

❖ ❖ ❖ ❖ ❖

APPENDIX - I

GRAFFITI AND SYMBOLS ON THE PUNCH MARKED COINS

Punch marked coins have been found all over India and the symbols on them are of various characters. They have been classified and studied by many scholars[1]. Majority of symbols are reported from certain principal sites. They are Bhir mound in Taxila, Mathura, Mirzapur, Chamanhuzuri, Sahet-Mahet, Ramnagar, Mamdar, Singavaran, Magadha, Golakpur, Vatsa, Kosala, Madipur, Eran, Kausambi, Ahichchatra, Kada, Kanauj, Ujjaini, Tripuri, Ayodhya and Amaravati. The tribal coins of the Audumbaras and Yaudheyas and some unattributed punch marked coins from Patna Museum also bear symbols of various kind.

The above mentioned sites offer varieties of symbols for a comparative analogy with those of the graffiti on ancient Indian pottery (Figs. 56-59). Besides Punch marked coins, the coins of the Cheras, Cholas and Pandyas of the Sangam age also bear symbols similar to the graffiti marks[2].

The chronology of the Punch marked coins may be tentatively put between 6th or 5th B.C. and 1st or 2nd century A.D. Therefore chronologically both the coins and the Early Iron age graffiti are coeval to a large extent with a few exceptions.

There are still a few symbols which may even be compared with the Pre-Iron age, Chalcolithic and the Pre-Harappan graffiti as well as Harappan signs.

The comparative study reveals that there are numerous graffiti similar to those of the symbols. There are still a few which could be traced on the Punch marked coins but slightly modified with addition of short strokes and pellets either at the extreme end of their arms or disposed slightly on the exterior of such graffiti and reproduced as symbols on the coins.

Most of the symbols on the Punch marked coins are common to all regions wherever they are found. This similarity in respect of the symbols on the coins from the various regions is unique and a rare feature which points to the dessimination of ideas and symbols over large tracts of the country. The Punch marked coins and their symbols bear testimony to the unity in diversity in ancient India.

Further the wide spread coin symbols resembling the graffiti is yet another proof for the wide distribution of the usage of such graffiti in that period though the latter are not reported from many regions or sites from where the above said Punch marked coins with similar symbols are reported. These symbols indirectly hint the existence of the tradition of graffiti in those regions, which could be brought to light by conducting excavations in these sites. This is the usefulness of the comparative analysis of the graffiti and the symbols on the punch marked coins for a given period. In addition to this, the comparative study establishes the impact of the tradition of graffiti felt on the coinage of the early India, and the execution of the graffiti on the coins is a delicate and intricate job as it involves not mere scratching but preparing seals with such symbols carved either on clay or terracotta or metal and punching them on the molten metal used for marking coins. Therefore the graffiti tradition had almost attained the status of an artistic work and the portraying such symbols became an ornamental craftsmanship.

At the same time like graffiti, the problem of identifying the symbols on the coins and their meaning remain a puzzle and baffle the scholars. The similarity between the graffiti and the punch marked coin symbols further complicate the subject.

At the present juncture we could say that the authors of the Punch marked coins have chosen and reproduced certain prominent graffiti on their coins without even any slightest alteration. But a few more graffiti have been reproduced with addition of short strokes or pellets and this enhances the value or significance of such graffiti. There is no doubt that these "Graffiti Symbols" hide something and the hidden meaning has to be brought to surface sooner or later.

The following are the graffiti marks with addition of dots or pellets reproduced on the coins :

1. The two armed symbol with pellets at their arm's end
2. The three armed symbol with pellets at their arm's end
3. The four armed symbol with pellets at their arm's end
4. The six armed symbol with pellets at the end of their arms
5. The ten armed tree symbol with pellets at the end of the arms or with three pellets only
6. The **Sula** with pellets at the end of the forks
7. Brahmi 'O' like letter with pellets on both sides
8. Brahmi 'Ya' like sign with a cluster of 7 pellets at the top
9. Four segmented squares with pellets at the centre of each square
10. Inverted 'V' letter like symbol with pellets.

What does the addition of pellets to certain graffiti symbols suggest? Do they have any significance? These are the questions to be answered; various explanations may be offered to answer these questions.

1. The pellets or dots or short strokes may be added to a symbol just for a decorative purpose.
2. They may be added to indicate the sacredness of the symbol
3. They may be added to indicate that the symbol symbolises an object emanating rays of light or heat or possessing invisible power. For instance the armed or multi armed symbols, the Ujjain symbol with addition of pellets may be taken for the Sun which emanates the light and heat and possesses invisible power. The pellets may be the symbolic representation of illumination also. The practice of illuminating the sacred structure like temple or sacred object like a planet has been in vogue from the remote past in India and this has been noticed in the Dharmapuri rock paintings (Figs. 14,15).

The study also indicates that the Proto-Brahmi Script or signs would have influenced the authors of the Punch marked coins as the chronology of the latter has been assigned to the beginning of 6th century B.C. A select group of graffiti is chosen and represented on the coins. But the difficulty in reading the symbols lies in the fact that they are not positioned in an orderly way either around the edges of the coins or in a series of lines as noticed in the coins of the later period, so as to consider them as part of a script. This may be due to the fact that our ancient people were not used to the habit of scratching legends or letters on the coins prior to the advent of the Greeks. But this handicap did not in any way deter them from portraying these symbols for purposes of conveying some names or ideas or actions or transactions.

It has already been demonstrated that there are a few symbols which could be interpreted as marks of Merchants' Guilds. Similarly some other symbols are identified as pictographs or logographs.

REFERENCES

1. Savitha Sharma, **Early Indian Symbols,** (Pl. 1-8).

2. R. Krishnamurthy, **Coins of Sangam Age (Tamil);** See also P.L. Gupta, Coins, (Pls. 1-3).

R. Vanaja - **Punch Marked Coins of Tamil Nadu** - Unpublished - M. Litt. Thesis, Madras University.

❖ ❖ ❖ ❖ ❖

APPENDIX - II

KILVALAI PAINTED LETTER - SIGNS - READING (FIG. 13):

There are two rows of signs. In the upper row there are five signs. Of these right extreme sign is a tree and it may be taken as a field symbol as seen on the Indus seals. The remaining four signs may be read from right to left as follows :

	VALUE	MEANING
Upper Row :	Udukkai - Mūn - Pen Ūr= Udukkai Muppenur -	Udukkai Muppenur the name of a village

The lower row has two signs in the upper plane and two others in the lower plane one below another.

	VALUE	MEANING
Left upper plane	Udukkai tūkkan or Damaru tūkkan	Damaru beater Drummer
Left Lower plane	Mādu Mādu or Iru mādu or Iru Kālai	Two bulls

If the two rows are put together and read the meaning is as follows:

The drummer hails from the village Muppenur.

MAHARAJAKADAI LETTER SIGNS - READING (FIG.13)

There are two rows of painted letter signs, the top row contains four signs and are read from right to left as follows :

	VALUE	MEANING
Top row	Mā Mā Mā Ūr= Mummānūr	Mummānūr the name of a village

Lower row has a series of seven signs. Of these three are human figures and the other four are numerals accompanying each of the former. They are read as follows :

	VALUE	MEANING
Lower Row	Intu āl - Pattu intu al - Impatu āl = Seventy men	Five men - Fifteen men Fifty men = Seventy men

If they are put together and read from top to bottom the meaning is as follows :

Seventy men are from the village Mummānur.

POST-SCRIPT

There are certain promising areas in Tamil Nadu if properly explored or tapped could expose the Pre-Iron age Rock Paintings and engravings. Of these the districts of South Arcot, North Arcot, Dharmapuri, Coimbatore and Tirunelveli are worth mentioning. Inaccessible hilly and wooded tracts of these districts possess the vestiges of the rock paintings and engravings. Some of the paintings from the districts of South Arcot, North Arcot and Dharmapuri have been brought to light very recently and their sufficient contribution to the study of Graffitology has been discussed in the earlier chapters of the present work. But somehow or other, the rock engravings of these areas have escaped the attention of the explorers. However, as reported earlier very recently the discovery of large panels of rock engravings have been reported from a place near Tindivanam in South Arcot District, they appear to belong to the Pre-Iron age.

The discovery has been brought to our notice since the completion of the present work. They have been placed at our disposal since then and an attempt has been made here to present the details of the rock engravings relevant to our study[1].

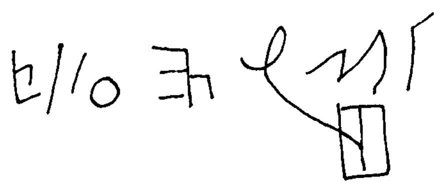
The engravings are located on the ceilings and walls of a dark narrow, interior passage leading to a deep natural cavern. There are four or five

huge panels measuring 3 metres length and 2 metres high. They seem to be narrative panels consisting of battle scenes, religious and magico-religious scenes. The human and animal figures are highly stylised and symbolised as in the case of rock paintings and sprinkled with letter like signs and graffiti marks.

They are deeply cut and engraved by a thick pointed instrument. There are stylised human figures holding sword or arrow, riding animals. Numeral signs such as short vertical or curvilinear strokes, small and big circles either alone or in series have been noticed accompanying the figures and events. In one of the panels is seen a pictographic inscription (Ligatured Graffiti) just in front of a rider with a river beneath him. This ligatured grafiti has a combination of Indus signs, Brahmi like letters and graffiti marks. It may be read from right to left as suggested for reading the ligatured graffiti earlier. It begins with a symbol  for village (Ūr).

There are also symbols representing trisula, wavy lines, tree, mountain etc. Besides these, there are four Brahmi letters engraved at the top left corner of this panel. These graffiti and the Brahmi inscriptions are under close examination. However a tentative identification and reading of the symbols in the Ligatured graffiti as well as Brahmi inscription are given below :

LIGATURED GRAFFITI (PART A)

FIGURE	VALUE	MEANING
	aram - malai - Mīn āru - irupadu āḷ (120 āḷ)	Steep mountain with star (above) or snake mountain with star (above) i.e. star above the steep mountain or snake mountain

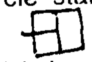
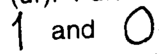
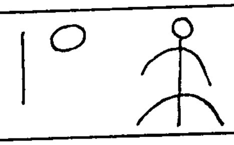
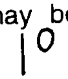
The circle stands for numeral 10 and strokes for 1 number. The ur symbol  is shown at the beginning in the right lower down of the graffiti. It may be a determinative symbol or it may stand for the village (ūr). Further below the ūr symbol is shown a rider with numeral signs  separately. This is another part of the same event noticed in the panel, (Part B). It may also be identified and read as follows:

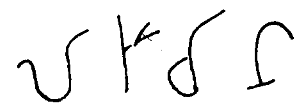
FIGURE	VALUE	MEANING
	Talai āḷ Pattu onṟu	Chieftain with ll men.

Here  may stand for all persons marching behind the Chieftain.

Combining the above mentioned two scenes Parts (A and B) in the panel it may be explained as follows :

The chieftain riding the animal is marching ahead;accompanying him immediately is a row of 11 men who were again followed by another group of 120 men. This event seems to have been taking place right under a steep hill or snake hill (ara malai) with star glittering at its top. The march may be said to have taken place during night. Since the numeral sign  is written just at the back of the chieftain, it may be taken that the men are following him. The village is also shown just above the Chieftain. That shows he is coming out of the village[2].

BRAHMI INSCRIPTION[3]:

FIGURE	VALUE	MEANING
	mā rā jar Talai rājar	Māhārāja ie. emperor or Chief of the rulers

In the Brahmi inscription the first letter  appears to be the jar symbol of the Indus script, rather than Brahmi **mā**. Hence, the present author supplied the value **taial** for this sign and read it as **talai rājar**. Both **mā** and **talai** stand for the same word 'Great' or 'Chief'.

These engravings are very useful to understand the system of Pictographic or Logographic writing of the pre-Iron age people. The sequential arrangement of the symbols to convey an event is shown in a curvilinear or parabolic line. But the narration is given in two parts in the same row from right to left (Fig. 60). They may have to be put together to extract the full meaning of the graffiti. This represents the archaic method of pictographic writing. The occurrence of Indus, Brahmi like signs and graffiti in the panel points to the Proto—Brahmi characters of the pre-Iron age. Further, the simultaneous presence of a short Brahmi inscription in the panel is unique as it offers best opportunity to measure the contribution of the Proto-Brahmi signs to the formation of Brahmi letters. Much cannot be said at the present juncture as they await further investigation.

REFERENCES

1. The rock engravings have been reported from Perumukkal village near Tindivanam in South Arcot District. The estampages of the rock paintings are with the Institute of Asian studies, Chennai.
2. The ligatured graffiti may be also read from left to right, as a few signs look like Brahmi letters. This is also under close examination.
3. Reading of the Brahmi inscription was provided by the discoverers of the engravings.

❖ ❖ ❖ ❖ ❖

BIBLIOGRAPHY

Agrawal, D.P. and Chakravarthy, Dilip, K. (Ed)	**Essays in Indian Proto History,** New Delhi, 1982.
Agrawala R.C.	"Aravalli", The Major source of Copper for the Indus and Indus Related Cultures, PP. 157 - 162, **The Frontiers of the Indus Civilisation**-(Ed), B.B. Lal and S.P. Gupta, New Delhi, 1984.
Aiyangar, S.K.	**Beginnings of South Indian History.**
Allchin and Allchin	**Birth of Indian Civilisation**
Arthur Evans	**Scripta Minoa**, Vol.I., 1909.
Asko Parpola,et. al.,	**Progress in the decipherment of the Proto-Dravidian Indus Script.** The Scandinavian Institute of Asian Studies, Copenhagen, 1969.
Asko Parpola,	"On the Harappan 'Yoke Carrier' Pictograph and the **Kavadi** Worship" **Seminar of Tamil Studies,** Madurai, 1981, Vol. I. Sec.2, 1981.
	Corpus of Indus Seals and Inscriptions, 1985.
	"The Indus Script: A Challenging Puzzle" **World Archaeology,** Vol.17, No.3, 1986
Banerjee,N.R.	**The Iron Age in India,** 1965
Banerjee N.R. and Soundararajan, K.V.	"Sanur", 1950-52;**A.I.** No.15, PP.30-34.

Basham. A.L.	"Some reflections on Dravidians and Aryans", **B.I.T.C.** Vol.2, P.225, University of Madras, 1963.
Bongard Levin, G.M.	**Symbols of Granary on the Seals of Mohenjodaro and Harappa**, India Studies Past and Present, 1960, Vol.I, No.2, P.377.
Branfil, B.R.	"Rude Megalithic Monuments in North Arcot District", **J.A.S.B.** Vol.XLIX, PP.8-10, 1980. **I.A.** No.10, 1881
	"On the Savanadurga Rude Stone Cemetery Central Maisur", **I.A.**, Vol.10, 1881, PP.1-12.
Brice William, C.	**The Copenhagen Decipherment of Proto Indic Script,** Review of A. Parpola et. al.1969, Kadmos, Vol.9. No.1, P.22
Bright William	"Archaeology, Linguistics and Ancient Dravidian: Proceedings of the FIfth International Conference" - **Seminar of Tamil Studies**, Madurai, 1981, Vol.1, Sec.2, P.1.
Buhler, G.,	**Indian Palaeography.**
Burnell, A.C.,	**Elements of South Indian Paleography,** Second Edn. London, Year 1878.
Burrow Thomas	"Dravidian and Decipherment of the Indus Script", **Journal of Tamil Studies.** Vol.2. No.1 1970. P.149.

Burrow T, and Emeneau, M.B.	**A Dravidian Etymological Dictionary,** London, Year 1961.
Casal J.M.,	"Fresh Digging at Amri", **Pakistan Archaeology**, I, Karachi, 1964.
	"Fouilies D', Amri, Paris, 1964.
	"Fouilies D' Virampatnam, Arikamedu
	"Sites Funerailes des Environs des Environs de Pondicherry.
Cemy J.,	**Paper and Books in Ancient Egypt.** London, University College, 1952.
Chakravorty, B.B.,	**Message of the Indus Script,** Indian Publications, Calcutta, 1976.
Chakravorty, B.B.,	**Decipherment of Indus Script. A New Light,** Indian Publications, Calcutta, 1975.
	"Intermediate Stage between Indus and Brahmi Scripts", **Folklore** (India), Vol.20, No.2, P.51, 1979
Chandra Paresh Das Gupta,	**The Excavations at Pandu Rajar Dhibi**. Calcutta.
Cornelius, J.T.,	"The Graffiti on the Megalithic Pottery of South India and Dravidian Origin." **Tamil Culture** Vol.12, P.287, 1966.
David Diringer,	**The Alphabet**, 1947. **Writing.** London. 1962.
Dales, George, F.,	"South Asia's Earliest Writing still Undeciphered", **Expedition**, Vol.9, No.2, P.30, 1967.

Dani, A.H., **Indian Palaeography**, 1963.

David Hawkins, "Writing in Anatolia: Imported and Indigenous Systems", **World Archaeology**, Vol.17, No.3., 1986.

David, M Robinson **Excavations at Olynthus**, (1934-38), Vol.6, (Pottery)

Deo, S.B., **Proto Historic Culture in India**.

Excavations at Takalghat and Kapa.

Deo, S.B. Ansari, Z.D., **Chalcolithic Chandoli**, Poona.

Edward, J. Kidder, **Japan**, (Thames and Hudson), 1959.

Emery, W.B. **The Tomb of Hemaka**, Cairo, 1938, P.41. **Archaic Egypt**, 1950.

Excavations at Sakkara, Great Tombs of the First Dynasty, Vol.II and III, London, 1954-57.

Fairservis, W.A. Jr. **Excavations at Allahdino III: The Graffiti A Model in the Decipherment of the Harappan Script,** Papers of the Allahdino Expedition, New York, 1977.

Excavations in the Quetta Valley, West Pakistan, New York, 1954.

Flinders Petrie **Ancient Egypt**, 1932, P.39.

Foote, R.B. **Indian Pre-Historic and Proto-historic Antiquities - Notes on their Ages and Distribution,** (1916).

Francois Vallat, "The Most Ancient Scripts of Iran, The Current situation", **World Archaeology,** Vol.17, No.3, 1986.

Gregory L. Possehl, and Raval M.H., **Harappan Civilisation and Rojdi**.

Gregory Possehl L., **Indus Civilisation in Saurashtra.**

Gordon Childe, **New Light on the Most Ancient East,** London, 1934.

Gupta P.L. **Coins**.

Gupta, M.N. "Indus Script Deciphered, New Insights gained", **Bullettin of the Ramakrishna Mission Institute of Culture,** Vol.31, No.2, P.43, 1980.

Gupta S.P. and Ramachandran, K.S. **The Origin of Brahmi Script,** PP.81-83.

Gurumurthy, S. "Recent Archaeological Investigations and Tamil Culture", **Bulletin of the Institute of Traditional Culture,** Chennai, 1976.

Ceramic Traditions in South India, Madras University, 1980.

"Iron-age Graffiti and the Indus Script" **Tamil Civilisation,** Tamil University, Tanjore.

Archaeology and Tamil Culture (Tamil) Madras University, 1972.

Gururaja Rao, B.K., **The Megalithic Culture in South India,** 1972.

Hall **The Ancient History of the Near East** PP.173-174.

Hans Nissen, "The Archaic Texts from Uruk", **World Archaeology**, Vol.IV, No.3, 1986.

Harden Donald., **The Phoenicians**, Penguin, 1971.

Haris, Z.S., **Grammar of the Phoenician Language**, New Haven, 1936.

Rev. Heras, H., **Studies in Proto-Indo-Mediterranean Culture**, Volume I, Bombay, 1953.

Hunter G.R., **The Script of Harappa and Mohenjo Daro and its connection with other Scripts,** London, 1934.

Indrapala, "Is it Indus-Brahmi Epigraph?", The Hindu, 26th April, 1981.

Issac Taylor, **The Alphabet**.

John D. Ray, "The Emergence of Writing in Egypt" **World Archaeology**, Vol.17, No.3, 1986.

John Gray, **The Cannanites**, (Thames and Hudson), 1964, P.22, Fig.3.

Joshi J.P., "Late Phase of the Harappa Culture, Evidence of Seals, Sealings and Graffiti", **Journal of Madhya Pradesh Itihas Parishad**, Vol.5, P.1, 1967.

Kaplony, P., **Die Inscription der Agyptischen Fruhzeit**, 3 vols. Wiesbaden, 1963.

Kramer, S.N., **History begins at Sumer**, 1961, P.21.

Krishnamurthy, R., **Coins of Sangam Age** (Tamil), Chennai.

Krishna Rao M.V.N., **Indus Script Deciphered, New Delhi**, 1982

Lal. B.B. "The Direction of writing in the Harappan Script", **Antiquity**, Vol.40, No.157, P.52, 1966.

Lal. B.B. "From the Megalithic to the Harappa, Tracing back the graffiti on Pottery". **A.I.** Vol.16, (1960), 1962.

Indian Archaeology since Independence, 1964

"Some Aspects of Archaeological Evidence relating to the Indus Script". **Puratattva**, No.7

Mackay, E.J.H., - **Further Excavations at Mohenjo Daro.**

Chanhudaro Excavations, 1935-36.

Madhivanan, R. **Sindhuveli Eluttin Thiravu**, (Tamil), Chennai, 1991

Mahadevan I. **The Indus Script - Texts Concordance and Tables**, Memoirs of the Archaeological Survey of India No.77, **A.S.I.**., New Delhi, 1977.

"Study of the Indus Script through Bilingual Parallels", **Ancient Cities of the Indus**, (Ed) G.L. Possehl, New Delhi, 1979.

"Dravidian Parallels in Proto-Indian Script", Journal of Tamil Studies, Vol.2, 1970, No.1, P.157.

Mahalingam T.V. **Report on the Excavations in the Lower Kaveri Valley,** Madras University Publication, (1970).

Early South Indian Palaeography University of Madras, 1974.

Malayandi S., "Glimpses of the Proto-Indian and Megalithic Deccan and South India through Epigraphical Evidence", **Aayvukkovai**, Vol.3, P.253, Annamalainagar, 1982.

Margabandhu and Sharma R.P. "Khataoli a Proto Historic Site" in **Archaeology and History**, (Ed) B.M. Pande and B.D. Chattopadyaya, PP. 287-94.

Marshall, J., **Mohenjodaro and Indus Civlisation** 3 Volumes, London.

Mason, A., **A History of Writing**, 1928

Mishra, V.D. "Pottery of Kausambi", **Potteries in Ancient India,** (Ed) By B.P. Sinha.

Nagaswamy, R. (Ed), **Damilika**, 1969

Nagaraja Rao, M.S., **Proto-Historic Cultures of the Tungabhadra Valley**, Dharwar, 1981.

Nilakanta Sastri, K.A., "An Inscribed pot sherd from Arikamedu", **J.M.U.**, Vol. XIV, 1942, No.1, PP.1-5.

Numa Laffittee, "A note on certain signs inscribed on Pottery found in ancient funeral urns in South India", **I.A.**Vol.LX,1931,PP.137-38.

Olga Tufnell, **The Iron Age, Lachish** IV.

Oliver J.P., "Certain Writing in the second Millennium B.C.", **World Archaeology**, Vol.17, No.3, 1986.

Pande, B.M., "On the Origin of the Harappan Sign" (Sign I.M.No.182), **Puratattva**, Vol.7

Pande, R.B., **Indian Palaeography**, I, 1952

Pattabhiraman, P.Z., **Les Fouillies D' Arikamedu**.

Pentti Aalto., "Indus Script and Dravidian, Studies in Indian Epigraphy", **Journal of the Epigraphical Society of India,** 1975, Vol.2, P.16.

Pran Nath, "The Script of the Indus Valley Seals" **J.R.A.S.** (London), 1931, PP.671-674.

Raman, K.V., (Ed) **Report on the Excavations at Uraiyur,** Madras University Publication, 1986-87.

Rao, S.R., "Excavations at Rangpur and other Explorations in Gujarat", **A.I.** No.18-19, PP.128-133.

"Late Harappan Daimabad", **Illustrated London News**, March, April, 1978.

"Lothal, 1955-62, (Memoirs of the Archaeological Survey of India). No.78, Vol.III.

"The Decipherment of the Indus Script, Mumbai, 1982.

Raghava Ayyangar, **Arayccittogai** (Tamil)

Ray, S.K. "Indus Script and the Graffiti from Sanur", **Indian Institute of Egyptology**, New Delhi, 1966.

Raymond Bloch, **The Etruscans**, (Thames and Hudson), 1958.

Rea, A., **A.R.A.S.I., S.C.**, 1903-1904

A.R.A.S.I., S.C., 1908-1909, PP.97-99

Catalogue of Pre-Historic Antiquities from Adichchanallur and Perumbair.

Sankalia H.D., Deo S.B. and Ansari Z.D., **Chalcolithic, Navdatoli**, (1957-59).

Sankalia, H.D., et. al **Report on the Excavations at Maheswar and Navdatoli**, Poona, Year 1958.

Report on the Excavations at Nasik and Jorwe, Poona, 1955.

Excavations at Ahar (Tambavati), Poona, 1969.

From History to Pre-History at Nevasa, (1954-56), Poona.

Sali S.A., **Daimabad,** (1976-79)

Sastri, T.V., Kasturi Bai, M. and Varaprasada Rao, J. **Veerapuram, A Type Site for Cultural Study in the Krishna Valley.**

Sathyamurthy, T., **The Iron age in Kerala, A Report on Mangadu Excavations.**

Savitha Sharma, **Early Indian Symbols**, New Delhi.

Seshadri, M., **Report on the Jadigenahalli Megalithic Excavations**, 1957.

Report on the Excavations at T.Narasipur.

Sharma, R.K., (Ed) **Indian Archaeology, New Perspectives.**

Sharma, Y.D., "Fresh Light on the Bara Culture from Mahorana", PP.156-176, in **Archaeology and History** (Ed) B.M. Pande and Chattopadyaya.

Singh H.N., **History and Archaeology of Black and Red Ware.**

Sinha, K.K., (Ed) **Excavations at Sravasti.**

Sivaramamurti, C., "Indian Epigraphy and South Indian Scripts", **Bullettin of the Madras Government Museums,** Chennai, 1952.

Subbarayalu, Y., "Vallam Excavations", **Tamil Civilisation Quarterly Journal of the Tamil University** Archaeology Special No.4, December, 1984, PP.9-98.

Subramanian, R., **Salihundam - A Buddhist Site in Andhra Pradesh.**

Subramanyan, T.N., **Pandai Tamil Eluttukkal**, 1931 (Tamil)

Sundara, A., "On the Association of graffiti with Megalithic Pottery" **Archaeological Congress and Seminar**, 1972, (Ed) Udai Vir Singh, PP.169-170.

Thapar, B.K., **"Excavations of a Megalithic Burial, Porkalam"**, 1948, **A.I.** No.8, PP.3-18.

"A Chalcolithic Site of the Southern Deccan," **A.I.** No.13, Maski, 1954

"Prakash, 1955, A Chalcolithic site in the Tapti Valley", **A.I.** Nos. 20 & 21 (1964-1965) PP.5-167.

Udai Vir Singh and Suraj Bhan, "A note on the Excavations at Balu (District Jind), Haryana" **Indian Archaeology, New Perspectives**, (Ed) By R.K. Sharma, P.126.

Vanaja, R., **Punch Marked Coins of Tamil Nadu**, Unpublished M.Litt, Thesis, Madras University.

Vats, M.S., **Excavations at Harappa**, 3 Vols. Calcutta, 1940.

Waddel, L.A., **The Indo-Sumerian Seals Deciphered**, London, 1925.

Waheed Khan, A., **A Monograph on Yelleswaram Excavations** (1964)

Wheeler, R.E.M., Arikamedu - "An Indo-Roman Trading Centre" **A.I.** No.2

"Brahmagiri and Chandravalli", 1947 **A.I.** No.4.

The Indus Valley Civilisation, 1960.

Charsada, 1958

William, G. Boltz, "Early Chinese Writing", **World Archaeology Vol.17, No.3, 1986.**

William Watson, **China**, (Thames and Hudson) 1962.

TABLE - I

LIST OF GRAFFITI BEARING SITES CONSULTED

SL. NO.	SITE	DISTRICT	STATE
1.	2.	3.	4.
	NEOLITHIC SITES		
1.	Gufkral ...	Pulwana	Jammu & Kashmir
2.	Nagarjunakonda ...	Guntur	Andhra Pradesh
3.	Kallur ...	...	Karnataka
4.	Piklihal ...	...	Karnataka
	PRE-HARAPPAN SITES		
5.	Amri ...		
6.	Balakot ...		

1.	2.	3.	4.
7. Ganeshwar	...	Sikar	Rajasthan
8. Mohorana	...	Sangrur	Punjab
9. Quetta Valley	...		

HARAPPAN SITES

1.	2.	3.	4.
10. Harappa	...	Montgomery	Punjab (Pak)
11. Mohenjodaro	...	Sind	West Pakistan
12. Chanhudaro	...		
13. Rojodero	...	Sind	
14. Alamgirpur	...	Meerut	Uttar Pradesh
15. Balu	...	Jind	Haryana
16. Bhagawanpura	...		Haryana

1.	2.	3.	4.
17. Chandigarh	...		Haryana
18. Khatoli	...		Haryana
19. Kalibangan	...	Ganganagar	Rajasthan
20. Lothal	...		Gujarat
21. Rojdi	...	Rajkot	Gujarat
22. Bhokildhar	...		Gujarat
23. Charanio	...		Gujarat
24. Chosla	...		Gujarat
25. Hanumanotimbo	...		Gujarat
26. Jivanitimbo	...		Gujarat
27. Vaharvo	...		Gujarat

1.		2.	3.	4.

CHALCOLITHIC SITES

28.	Ahar	...	Udaipur	Rajasthan
29.	Bhoknakhera	...	Seshore	Madhya Pradesh
30.	Eran	...	Sagar	Madhya Pradesh
31.	Maheshwar	...	West Nimar	Madhya Pradesh
32.	Navdatoli	...	West Nimar	Madhya Pradesh
33.	Pipalyalorkha	...	Raisen	Madhya Pradesh
34.	Bahal	...	Jalgaon	Maharashtra
35.	Tekwada	...	Jalgaon	Maharashtra
36.	Chandoli	...	Poona	Maharashtra
37.	Inamgaon	...	Poona	Maharashtra

1.		2.	3.	4.
38.	Daimabad	...	Ahmadnagar	Maharashtra
39.	Jorwe	...	Ahmadnagar	Maharashtra
40.	Nevasa	...	Ahmadnagar	Maharashtra
41.	Nasik	...	Nasik	Maharashtra
42.	Korat	...	Dhullia	Maharashtra
43.	Prakash	...	Dhullia	Maharashtra
44.	Takalghat	...	Dhullia	Maharashtra
45.	Tuljapur	...	Amaravati	Maharashtra
46.	Nagal	...	Broach	Gujarat
47.	Malvan	...	Surat	Gujarat
48.	Rangpur	...	Surendranagar	Gujarat
49.	Pandurajar Dhibi	...	Burdwan	West Bengal

1.		2.	3.	4.

IRON-AGE BURIAL SITES

50.	Amirthamangalam	Chingleput	Chingleput	Tamil Nadu
51.	Kunnathur	...	Chingleput	Tamil Nadu
52.	Perumbair	...		Tamil Nadu
53.	Sanur	...		Tamil Nadu
54.	North Arcot District		North Arcot District	Tamil Nadu
55.	Kovalan Pottal	...	Madurai	Tamil Nadu
56.	Kambarmedu	...	Tanjavur	Tamil Nadu
57.	Adichchanallur	...	Tirunelveli	Tamil Nadu
58.	Muttarapalayam	...		Pondicherry
59.	Souttoukeni	...		Pondicherry

1.		2.	3.	4.
60.	Virampattinam	...		Pondicherry
61.	Feroke	...	Kozhikode	Kerala
62.	Porkalam	...	Trichur	Kerala
63.	Chikkajala	...	Bangalore	Karnataka
64.	Gadiganuru	...	Bangalore	Karnataka
65.	Jadigenahalli	...	Bangalore	Karnataka
66.	Savandurga	...	Bangalore	Karnataka
67.	Banahalli	...	Kolar	Karnataka
68.	Belgaum	...	Belgaum	Karnataka
69.	Ramapuram	...	Kurnool	Andhra Pradesh
70.	Yelleswaram	...	Nalgonda	Andhra Pradesh

1.		2.	3.	4.
71.	Kapa	...	Nagpur	Maharashtra
72.	Mahurjhari	...	Nagpur	Maharashtra
73.	Naikund	...	Nagpur	Maharashtra
74.	Theur	...	Poone	Maharashtra
75.	Ranjala	...	Dhullia	Maharashtra

IRON-AGE HABITATION SITES

1.		2.	3.	4.
76.	Kanchipuram	...	Chingelput	Tamil Nadu
77.	Kudikkadu	...	South Arcot	Tamil Nadu
78.	South Arcot	...	South Arcot	Tamil Nadu
79.	Paiyamapalli	...	North Arcot	Tamil Nadu
80.	Adiyamankottai	...	Dharmapuri	Tamil Nadu

1.		2.	3.	4.
81.	Guttur	...	Dharmapuri	Tamil Nadu
82.	Perur	...	Coimbatore	Tamil Nadu
83.	Alagarai	...	Trichy	Tamil Nadu
84.	Karur	...	Trichy	Tamil Nadu
85.	Tirukkampuliyur	...	Trichy	Tamil Nadu
86.	Uraiyur	...	Trichy	Tamil Nadu
87.	Korkai	...	Tirunelveli	Tamil Nadu
88.	Alagankulam	...	Ramnad	Tamil Nadu
89.	Arikamedu	...		Pondicherry
90.	Kallur	...	Belgaum	Karnataka
91.	T. Narasipur	...	Mysore	Karnataka

1.	2.	3.	4.
92. Salihundam	...	Srikakulam	Andhra Pradesh
93. Veerapuram	...	Kurnool	Andhra Pradesh
94. Phulbani	...	Phulbani	Orissa
95. Katragarh	...	Muzaffarpur	Bihar
96. Taradih	...	Gaya	Bihar
97. Sonepur	...	Gaya	Bihar
98. Chirand	...	Gaya	Bihar
99. Kausambi	...		Uttar Pradesh
100. Rajghat	...	Varanasi	Uttar Pradesh
101. Sravasti	...	Balraich	Uttar Pradesh
102. Chandrakethugarh	...	24 Parganas	West Bengal
103. Charsada	...		West Pakistan

1.	2.	3.	4.

BURIAL-CUM HABITATION SITES

104. Kodumanal	...	Periyar	Tamil Nadu
105. Vallam	....	Tanjavur	Tamil Nadu
106. Brahmagiri	...	Chitaldrug	Karnataka
107. Maski	...	Chitaldrug	Karnataka
108. Nagarjunakonda	...	Guntur	Andhra Pradesh

MUSEUMS

1. Govt. Museum,		Chennai	Tamil Nadu
2. Govt. Museum,		Madurai	Tamil Nadu
3. Govt. Museum,		Salem	Tamil Nadu
4. Govt. Museum,		Pondicherry	Pondicherry

1.	2.	3.	4.
5.	Coimbatore Museum,	Coimbatore	Tamil Nadu
6.	Poondi Museum,	Poondi	Tamil Nadu
7.	Erode Museum,	Erode	Tamil Nadu
8.	Dharmapuri Museum,	Dharmapuri	Tamil Nadu
9.	Korkai Museum,	T.velly	Tamil Nadu
10.	Kalaimagal Museum,	Erode	Tamil Nadu
11.	Hyderabad Museum,	Hyderabad	Andhra Pradesh

TABLE II

STATEMENT SHOWING TOTAL NUMBER OF GRAFFITI FROM DIFFERENT CULTURES

SL. NO.	CULTURE	SINGLE GRAFFITI	LIGATURED GRAFFITI	TOTAL
1.	NEOLITHIC ...	5		5
2.	PRE-HARAPPAN ...	68	26	94
3.	HARAPPAN ...	101	118	219
4.	CHALCOLITHIC ...	462	86	548
5.	IRON-AGE HABITATION	1190	396	1586
6.	IRON-AGE BURIAL ...	83	71	154
7.	MUSEUM COLLECTIONS (Mostly from Iron-age Burials)	183	47	230
8.	HUNT, NUMA, YAZDANI & LAL COLLECTIONS :	196	24	220
		2288	**768**	**3056**

TABLE III

SITE-WISE & CULTURE WISE COLLECTION OF TOTAL GRAFFITI

SL. NO.	SITE	DISTRICT	STATE	SINGLE GRAFFITI	LIGATURED GRAFFITI	TOTAL
1.	2.	3.	4.	5.	6.	7.
			NEOLITHIC SITES			
1.	Gufkral	Pulwana	Jammu & Kashmir	1	-	1
2.	Nagarjunakonda	Guntur	Andhra Pradesh	1	-	1
3.	Kallur		Karnataka	2	-	2
4.	Piklihal		Karnataka	1	-	1
			PRE-HARAPPAN SITES			
5.	Amri			7	15	22
6.	Balakot			8	2	10
7.	Ganeshwar	Sikar	Rajasthan	11	4	15
8.	Mohorana	Sangrur	Punjab	4	-	4
9.	Quetta Valley			38	5	43

1.	2.	3.	4.	5.	6.	7.
			HARAPPAN SITES			
10.	Harappa	Montgomery	Punjab (Pak)	28	40	68
11.	Mohenjodaro	Sind	West Pakistan	2	17	19
12.	Chanhudaro			1	3	4
13.	Rojodero	Sind		1	-	1
14.	Alamgirpur	Meerut	Uttar Pradesh	-	3	3
15.	Balu	Jind	Haryana	4	-	4
16.	Bhagwanpura		Haryana	-	-	-
17.	Chandigarh		Haryana	1	3	4
18.	Khatoli		Haryana	1	-	1
19.	Kalibangan	Ganganagar	Rajasthan	4	16	20
20.	Lothal		Gujarat	28	22	50
21.	Rojdi	Rajkot	Gujarat	21	5	26
22.	Bhokildhar		Gujarat	2	-	2
23.	Charanio		Gujarat	1	-	1

1.	2.	3.	4.	5.	6.	7.
24.	Chosla		Gujarat	2	1	3
25.	Hanumanotimbo		Gujarat	1	-	1
26.	Jvanionotimbo		Gujarat	1	-	1
27.	Vaharvo		Gujarat	3	1	4
			CHALCOLITHIC SITES			
28.	Ahar	Udaipur	Rajasthan	8	-	8
29.	Bhoknakhera	Seshore	Madhya Pradesh	4	-	4
30.	Eran	Sagar	Madhya Pradesh	3	1	4
31.	Maheshwar	West Nimar	Madhya Pradesh	7	6	13
32.	Navdatoli	West Nimhar	Madhya Pradesh	38	2	40
33.	Pipalyalorkha	Raussen	Madhya Pradesh	-	-	-
34.	Bahal	Jalgaon	Maharashtra	1	-	1
35.	Tekwada	Jalgaon	Maharashtra	1	-	1
36.	Chandoli	Poona	Maharashtra	3	1	4
37.	Inamgaon	Poona	Maharashtra	1	-	1

1.	2.	3.	4.	5.	6.	7.
38.	Daimabad	Ahmadnagar	Maharashtra	143	34	177
39.	Jorwe	Ahmadnagar	Maharashtra	3	-	3
40.	Nevasa	Ahmadnagar	Maharashtra	2	-	2
41.	Nasik	Nasik	Maharashtra	11	8	19
42.	Korat	Dhullia	Maharashtra	1	-	1
43.	Prakash	Dhullia	Maharashtra	6	5	11
44.	Takalghat	Dhullia	Maharashtra	13	3	16
45.	Tuljapur	Amaravati	Maharashtra	-	-	-
46.	Nagal	Broah	Gujarat	11	1	12
47.	Malvan	Surat	Gujarat	-	-	-
48.	Rangpur	Surendranagar	Gujarat	206	16	222
49.	Pandurajar Dhibi	Burdwan	West Bengal	-	-	-
			BURIAL SITES			
50.	Amirthimangalam	Chingelput	Tamil Nadu	4	-	4
51.	Kunnathur	Chingelput	Tamil Nadu	1	1	2

1.	2.	3.	4.	5.	6.	7.
52.	Perumbair		Tamil Nadu	1	1	2
53.	Sanur		Tamil Nadu	11	28	39
54.	North Arcot District	North Arcot District	Tamil Nadu	3	1	4
55.	Kovalanpottal	Madurai	Tamil Nadu	3	2	5
56.	Kambarmedu	Tanjavur	Tamil Nadu	3	2	5
57.	Adichchanallur	Tirunelveli	Tamil Nadu	2	-	2
58.	Muttarapalayam		Pondicherry	-	-	-
59.	Souttoukeni		Pondicherry	-	-	-
60.	Virampattinam		Pondicherry	2	-	2
61.	Feroke	Kozhikode	Kerala	2	-	2
62.	Porkalam	Trichur	Kerala	2	-	2
63.	Chikkajala	Bangalore	Karnataka	1	-	1
64.	Gadiganuru	Bangalore	Karnataka	1	-	1
65.	Jadiganahalli	Bangalore	Karnataka	-	3	3
66.	Savandurga	Bangalore	Karnataka	-	10	10

1.	2.	3.	4.	5.	6.	7.
67.	Anahalli	Kolar	Karnataka	-	-	-
68.	Belgaum District	Belgaum	Karnataka	17	3	20
69.	Ramapuram	Kurnool	Andhra Pradesh	14	2	16
70.	Yelleswaram	Nalgonda	Andhra Pradesh	-	2	2
71.	Kapa	Nagpur	Maharashtra	1	-	1
72.	Mahurjahari	Nagpur	Maharashtra	-	-	-
73.	Naikund	Nagpur	Maharashtra	-	-	-
74.	Theur	Poone	Maharashtra	13	2	15
75.	Ranjala	Dhullia	Maharashtra	2	1	3
		IRON-AGE HABITATION SITES				
76.	Kanchipuram	Chingleput	Tamil Nadu	13	2	15
77.	Kudikkadu	South Arcot	Tamil Nadu	3	-	3
78.	South Arcot	South Arcot	Tamil Nadu	-	-	-
79.	Paiyampalli	North Arcot	Tamil Nadu	-	-	-
80.	Adiyamankottai	Dharmapuri	Tamil Nadu	-	1	1

1.	2.	3.	4.	5.	6.	7.
81.	Guttur	Dharmapuri	Tamil Nadu	3	-	3
82.	Perur	Coimbatore	Tamil Nadu	37	13	50
83.	Alagarai	Trichy	Tamil Nadu	87	47	134
84.	Karur	Trichy	Tamil Nadu	74	36	110
85.	Tirukkampuliyur	Trichy	Tamil Nadu	164	70	234
86.	Uraiyur	Trichy	Tamil Nadu	82	31	113
87.	Korkai	Tirunelveli	Tamil Nadu	7	17	24
88.	Alagankulam	Ramnad	Tamil Nadu	26	-	26
89.	Arikamedu		Pondicherry	89	25	105
90.	Kallur	Belgaum	Karnataka	4	-	4
91.	T.Narasipur	Mysore	Karnataka	148	38	186
92.	Salihundam	Srikakulam	Andhra Pradesh	5	2	7
93.	Veerapuram	Kurnool	Andhra Pradesh	5	2	7
94.	Phulbani	Phulbani	Orissa	-	-	-
95.	Katragarh	Muzaffarpur	Bihar	-	-	-

1.	2.	3.	4.	5.	6.	7.
96.	Taradih	Gaya	Bihar	-	-	-
97.	Sonepur	Gaya	Bihar	7	-	7
98.	Chirand	Gaya	Bihar	-	-	-
99.	Kausambi	Uttara Pradesh	Uttara Pradesh	45	-	45
100.	Rajghat	Varanasi	Uttara Pradesh	4	-	4
101.	Sravasti	Balraich	Uttara Pradesh	2	-	2
102.	Chandra Kethughar	24 Parganas	West Bengal	-	3	3
103.	Charsada		West Pakistan	1	3	4
		BURIAL-CUM HABITATION SITES				
104.	Kodumanal	Periyar	Tamil Nadu	275	70	345
105.	Vallam	Tanjavur	Tamil Nadu	89	19	108
106.	Brahmairi	Chitaldrug	Karnataka	10	10	20
107.	Maski	Chitaldrug	Karnataka	12	3	15
108.	Nagarjunakonda	Guntur	Andhra Pradesh	3	3	6

1.	2.	3.	4.	5.	6.	7.
			MUSEUMS			
1.	GOVT. MUSEUM CHENNAI	CHENNAI	TAMIL NADU	20	4	24
2.	GOVT. MUSEUM MADURAI	MADURAI	TAMIL NADU	4	4	8
3.	GOVT. MUSEUM SALEM	SALEM	TAMIL NADU	1	-	1
4.	GOVT. MUSEUM	PONDICHERRY	PONDICHERRY	21	3	24
5.	COIMBATORE MUSEUM COIMBATORE	COIMBATORE	TAMILNADU	3	1	4
6.	POONDI MUSEUM POONDI	POONDI	TAMIL NADU	12	3	15
7.	ERODE MUSEUM ERODE	ERODE	TAMIL NADU	2	-	2
8.	DHARMAPURI MUSEUM	DHARMAPURI	TAMIL NADU	2	-	2
9.	KORKAI MUSEUM	KORKAI	TAMIL NADU	-	8	8

1.	2.	3.	4.	5.	6.	7.
10.	KALAIMAGAL MUSEUM	ERODE	TAMIL NADU	67	5	72
11.	HYDERABAD MUSEUM	HYDERABAD	ANDHRA PRADESH	51	7	58
			PREVIOUS WORKS			
1.	HUNT	...		11	4	15
2.	NUMA	...		3	4	7
3.	YAZDANI	..		124	7	131
4.	LAL	...		58	3	61

TABLE - IV

PERIODWISE DISTRIBUTION OF PROMINENT GRAFFITI

1.	SYMBOLS COMMON TO ALL PERIODS	...	19
2.	SYMBOLS COMMON TO FOUR PERIODS	...	31
3.	SYMBOLS COMMON TO THREE PERIODS	...	41
4.	SYMBOLS COMMON TO PRE-HARAPPAN & HARAPPAN	...	1
5.	SYMBOLS COMMON TO PRE-HARAPPAN & IRON-AGE	...	2
6.	SYMBOLS COMMON TO PRE-HARAPPAN & CHALCOLITHIC	...	4
7.	SYMBOLS COMMON TO HARAPPAN & CHALCOLITHIC	...	4
8.	SYMBOLS COMMON TO HARAPPAN & IRON-AGE	...	10
9.	SYMBOLS COMMON TO CHALCOLITHIC & IRON-AGE	...	21
10.	SYMBOLS COMMON TO IRON-AGE HABITATION & IRON-AGE BURIALS	...	29
11.	EXCLUSIVELY PRE-HARAPPAN SYMBOLS	...	16
12.	EXCLUSIVELY HARAPPAN SYMBOLS	...	22
13.	EXCLUSIVELY CHALCOLITHIC	...	83
14.	EXCLUSIVELY IRON-AGE HABITATION	...	171
15.	EXCLUSIVELY IRON-AGE BURIAL	...	59
	TOTAL	...	513

KEY TO THE PERIOD-WISE DISTRIBUTION OF PROMINENT GRAFFITI
DISTRIBUTION KEY

COMBINATION	SYMBOL NUMBERS							TOTAL
Symbols common to all periods :	1,	2,	3,	52,	69,	70,	086,	19
	096,	108,	201,	210,	211,	272,	275,	
	360,	379,	400,	417,	461			
Common to 4 periods only :								
Common without PHR.	4,	6,	8,	43,	97,	134,	143,	
	157,	170,	176,	228,	229,	256,	276,	
	335,	347,	348,	359,	373,	376,	443,	
	445,	475,						23
Common Without HR.	11,	16,	77,	255,	334,	372,		6
Common Without Chalcolithic.	222.							1
Common Without Iron-age Burial:	401.							1

Common to three periods only.								
IB, IH, CH.	7, 164, 459,	46, 165, 493,	74, 174, 156,	79, 337, 163.	107, 345,	131, 349,	152, 444,	18
IB, PH, IH.	9,	10,	15.					3
IH, CH, HR.	20,	89,	135,	172,	374,	477		6
IB, CH, HR.	39,	94,	177.	374.				4
IB, HR, PH.	101,	106						2
IB, IH, HR.	136,	146,	162,	247,	274,	410		6
IH, HR, PH.	190,	198.						2
Common to PH and HR.	453.							1
Common to PH and IH.	218,	396.						2
Common to PH and CH	85,	95.	23	25				4

KEY TO THE PERIOD-WISE DISTRIBUTION OF PROMINENT GRAFFITI DISTRIBUTION KEY (Contd.)

COMBINATION	SYMBOL NUMBERS							TOTAL
Common to HR and CH.	44,	73,	84,	476.				4
Common to HR. & IH.	19, 438,	21, 441,	34, 478.	155,	212,	281,	416,	10
Common to HR & IB	415.							1
Common to CH & IH	110, 285, 446,	118, 290, 468,	159, 346, 311	243, 350,	251, 351,	258, 353,	283, 370,	17
Common to CH & IB	206,	300,	339,	509.				4
Common to IH & IB	14, 160, 249, 263, 464.	17, 168, 250, 270,	18, 192, 252, 371,	23, 200, 257, 406,	26, 203, 259, 442,	47, 205, 260, 448,	128, 240, 262, 463,	29

Exclusively Pre-Harappan	30,	31,	58,	60,	66,	105,	173,	
	207,	226,	287,	309,	427,	428,	430,	
	456.							16
Exclusively Harappan	27,	67,	98,	99,	103,	117,	123,	
	169,	209,	237,	266,	312 ,	323,	328,	
	336,	341,	356,	375,	380,	389,	473,	
	482.							22
Exclusively Chalcolithic	45,	53,	63,	71,	80,	82,	88,	
	113,	119,	132;	133,	150,	182,	183,	
	184,	185,	186,	187,	188,	204,	208,	
	216,	223,	242,	254,	267,	268,	284,	
	286,	292,	293,	294,	295,	296,	298,	
	299,	303,	305,	306,	307,	310,	314,	
	315,	316,	317,	319,	320,	325,	326,	
	327,	329,	330,	331,	338,	340,	344,	
	354,	365,	384,	394,	395,	411,	412,	
	413,	414,	420,	422,	426,	431,	432,	
	433,	435,	436,	452,	455,	460,	465,	
	467,	483,	487,	488,	496,	502.		83

PH: Pre-Harappan; HR : Harappan; CH : Chalcolithic;
IH: Iron age Habitation; IB: Iron age Burials.

KEY TO THE PERIOD-WISE DISTRIBUTION OF PROMINENT GRAFFITI DISTRIBUTION KEY (Contd.)

COMBINATION	SYMBOL NUMBERS							TOTAL
Exclusively Iron-age Habitation	5,	12,	22,	28,	29,	33,	35,	
	36,	37,	41,	42,	49,	50,	51,	
	54,	56,	61,	62,	64,	65,	68,	
	72,	76,	78,	81,	83,	90,	91,	
	93,	102,	109,	111,	112,	114,	115,	
	116,	120,	121,	122,	124.	125,	126,	
	127,	137,	138,	144,	145,	148,	149,	
	151,	153,	154,	156,	161,	171,	175,	
	178,	180,	181,	189,	193,	194,	195,	
	196,	197,	199,	202,	213,	214,	215,	
	219,	220,	221,	234,	235,	236,	239,	
	244,	245,	248,	253,	261,	265,	269,	
	277,	278,	279,	282,	289,	301,	308,	
	313,	318,	321,	322,	330,	332,	333,	
	342,	343,	355,	357,	358,	361,	362,	
	363,	364,	366,	367,	369,	378,	381,	
	382,	383,	385,	386,	387,	388,	390,	

COMBINATION	SYMBOL NUMBERS	TOTAL
Exclusively Iron-age Habitation (Contd...)	391, 392, 393, 398, 399, 403, 404, 405, 407, 408, 409, 418, 419, 421, 424, 425, 434, 437, 439, 440, 450, 454, 457, 462, 466, 469, 470, 474, 479, 480, 481, 484, 485, 486, 489, 490, 491, 492, 495, 497, 499, 501, 503, 504, 508, 509, 510, 511, 512, 513, 505.	170
Exclusively Iron age Burials :	13, 24, 32, 38, 40, 48, 55, 57, 75, 87, 92, 100, 104, 129, 130, 140, 139, 141, 142, 147, 166, 167, 179, 191, 217, 224, 225, 230, 231, 232, 233, 238, 241, 246, 264, 271, 273, 280, 288, 291, 297, 302, 304, 368, 377, 397, 402, 423, 429, 447, 451, 458, 471, 472, 494, 498, 500, 506, 507.	59

TABLE - V

FREQUENCY OF PROMINENT GRAFFITI IN DIFFERENT CULTURES.

SYMBOL No.	IRON-AGE BURIALS	IRON-AGE HABITATION	CHALCOLITHIC	HARAPPAN	PRE-HARAPPAN
1.	2.	3.	4.	5.	6.
1.	12	44	6	9	1
2.	11	29	7	23	4
3.	7	20	10	18	2
4.	6	12	6	8	-

SYMBOL No.	IRON-AGE BURIALS	IRON-AGE HABITATION	CHALCOLITHIC	HARAPPAN	PRE-HARAPPAN
1.	2.	3.	4.	5.	6.
5.	1	1	-	-	-
6.	2	7	6	4	-
7.	2	2	1	-	-
8.	4	1	1	1	-

1.	2.	3.	4.	5.	6.
9.	4	12	-	-	-
10.	1	5	-	-	-
11.	1	2	2	-	-
12.	-	1	-	-	-
13.	1	-	-	-	-
14.	7	10	-	-	-
15.	3	4	-	-	2
16.	2	6	-	-	2
17.	29	5	-	-	-
18.	2	-	-	-	-
19.	-	1	-	2	-
20.	-	1	1	1	-

1.	2.	3.	4.	5.	6.
21.	-	1	-	4	-
22.	-	1	-	-	-
23.	-	2	1	-	-
24.	1	-	-	-	-
25.	-	-	1	-	-
26.	1	3	-	-	-
27.	-	-	-	1	-
28.	-	2	-	-	-
29.	-	3	-	-	-
30.	-	-	-	-	1
31.	-	-	-	-	1
32.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
33.	-	1	-	-	-
34.	-	2	-	1	-
35.	-	1	-	-	-
36.	-	1	-	-	-
37.	-	1	-	-	-
38.	1	-	-	-	-
39.	1	-	1	-	-
40.	1	-	-	-	-
41.	-	1	-	-	-
42.	-	1	-	-	-
43.	4	10	3	1	-
44.	-	-	1	1	-
45.	-	-	1	-	-

1.	2.	3.	4.	5.	6.
46.	1	2	4	-	-
47.	1	5	-	-	-
48.	1	-	-	-	-
49.	-	5	-	-	-
50.	-	2	-	-	-
51.	-	1	-	-	-
52.	17	77	4	4	6
53.	-	-	1	-	-
54.	-	1	-	-	-
55.	1	-	-	-	-
56.	-	1	-	-	-
57.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
58.	-	-	-	-	1
59.	-	-	-	-	1
60.	-	-	-	-	1
61.	-	1	-	-	-
62.	-	1	-	-	-
63.	-	-	1	-	-
64.	-	1	-	-	-
65.	-	1	-	-	-
66.	-	-	-	-	2
67.	-	-	-	3	-
68.	-	1	-	-	-
69.	1	23	1	1	5

1.	2.	3.	4.	5.	6.
70.	5	23	3	1	1
71.	-	-	1	-	-
72.	-	1	-	-	-
73.	-	-	3	1	-
74.	1	4	5	-	-
75.	1	-	-	-	-
76.	-	1	-	-	-
77.	1	2	-	-	1
78.	-	2	-	-	-
79.	1	8	2	-	-
80.	1	-	-	-	-
81.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
82.	-	-	3	-	-
83.	-	1	-	-	-
84.	-	-	1	1	-
85.	-	-	2	-	1
86.	5	8	3	2	1
87.	4	-	-	-	-
88.	-	-	1	-	-
89.	-	1	-	4	-
90.	-	1	-	-	-
91.	-	1	-	-	-
92.	1	-	-	-	-
93.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
94.	1	1	1	1	-
95.	-	-	3	-	1
96.	1	1	5	2	2
97.	1	3	5	3	-
98.	-	-	-	1	-
99.	-	-	-	1	-
100.	1	-	-	-	-
101.	1	1	-	3	1
102.	-	1	-	-	-
103.	-	-	-	1	-
104.	1	-	-	-	-
105.	-	-	-	-	1

1.	2.	3.	4.	5.	6.
106.	1	-	-	2	1
107.	2	1	3	-	-
108.	5	9	14	2	1
109.	-	1	-	-	-
110.	-	3	5	-	-
111.	-	1	-	-	-
112.	-	1	-	-	-
113.	-	-	1	-	-
114.	-	1	-	-	-
115.	-	1	-	-	-
116.	-	1	-	-	-
117.	-	-	-	1	-

1.	2.	3.	4.	5.	6.
118.	-	4	1	-	-
119.	-	-	3	-	-
120.	-	1	-	-	-
121.	-	1	-	-	-
122.	-	1	-	-	-
123.	-	-	-	1	-
124.	-	1	-	-	-
125.	-	1	-	-	-
126.	-	1	-	-	-
127.	-	1	-	-	-
128.	1	1	-	-	-
129.	2	-	-	-	-

1.	2.	3.	4.	5.	6.
130.	1	-	-	-	-
131.	1	1	2	-	-
132.	-	-	1	-	-
133.	-	-	1	-	-
134.	1	5	1	1	-
135.	-	4	2	1	-
136.	1	6	-	-	1
137.	-	1	-	-	-
138.	-	1	-	-	-
139.	1	-	-	-	-
140.	3	-	-	-	-
141.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
142.	1	-	-	-	-
143.	8	6	1	1	-
144.	-	1	-	-	-
145.	-	1	-	-	-
146.	1	1	-	3	-
147.	1	-	-	-	-
148.	-	1	-	-	-
149.	-	1	-	-	-
150.	-	-	1	-	-
151.	-	1	-	-	-
152.	3	6	3	-	-
153.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
154.	-	1	-	-	-
155.	-	3	-	1	-
156.	-	4	-	-	-
157.	1	1	2	3	-
158.	2	3	1	-	-
159.	-	1	1	-	-
160.	1	6	-	-	-
161.	-	6	-	-	-
162.	2	5	-	4	-
163.	1	1	1	-	-
164.	-	-	3	1	-
165.	1	4	1	-	-
166.	2	-	-	-	-
167.	1	-	-	-	-
168.	1	1	-	-	-
169.	-	-	-	2	-
170.	4	5	3	6	-
171.	-	1	-	-	-
172.	-	1	1	-	-
173.	-	-	-	-	1
174.	1	2	1	-	-
175.	-	1	-	-	-
176.	1	16	1	1	-
177.	-	3	1	1	-

1.	2.	3.	4.	5.	6.
178.	-	1	-	-	-
179.	1	-	-	-	-
180.	-	1	-	-	-
181.	-	1	-	-	-
182.	-	1	1	-	-
183.	-	-	1	-	-
184.	-	-	1	-	-
185.	-	-	1	-	-
186.	-	-	1	-	-
187.	-	-	1	-	-
188.	-	1	-	-	-
189.	-	1	-	-	-
190.	-	1	-	-	1
191.	1	-	-	-	-
192.	1	1	-	-	-
193.	-	1	-	-	-
194.	-	3	-	-	-
195.	-	1	-	-	-
196.	-	1	-	-	-
197.	-	-	1	-	-
198.	-	1	-	1	1
199.	-	1	-	-	-
200.	1	8	-	-	-
201.	4	19	4	6	4

1.	2.	3.	4.	5.	6.
202.		4	-	-	-
203.	1	1	-	-	-
204.		-	2	-	-
205.	1	2	-	-	-
206.	1	-	3	-	-
207.	-	-	-	-	2
208.	-	-	1	-	-
209	-	-	-	6	-
210.	15	74	5	7	7
211.	1	24	6	-	3
212.	-	3	-	1	-
213.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
214.	-	1	-	-	-
215.	-	5	-	-	-
216.	-	-	3	-	-
217.	-	1	-	-	1
218.	-	1	-	-	-
219.	-	1	-	-	-
220.	-	1	-	-	-
221.	-	1	-	-	-
222.	2	8	-	4	5
223.	-	-	1	-	-
224.	1	-	-	-	-
225.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
226.	-	-	-	-	2
227.	1	-	-	-	-
228.	30	86	16	1	-
229.	5	20	1	2	-
230.	1	-	-	-	-
231.	1	-	-	-	-
232.	1	-	-	-	-
233.	1	-	-	-	-
234.	-	1	-	-	-
235.	-	4	-	-	-
236.	-	1	-	-	-
237.	-	-	-	1	-

1.	2.	3.	4.	5.	6.
238.	1	-	-	-	-
239.	-	2	-	-	-
240.	2	-	-	-	-
241.	2	-	-	-	-
242.	-	-	1	-	-
243.	-	1	1	-	-
244.	-	1	-	-	-
245.	-	2	-	-	-
246.	1	-	-	-	-
247.	1	1	-	1	-
248.	-	1	-	-	-
249.	-	3	-	-	-

1.	2.	3.	4.	5.	6.
250.	2	17	-	-	-
251.	-	5	2	-	-
252.	13	22	-	-	-
253.	-	1	-	-	-
254.	-	-	1	-	-
255.	8	12	5	-	2
256.	6	4	3	1	-
257.	1	1	-	-	-
258.	-	1	2	-	-
259.	1	2	-	-	-
260.	4	7	-	-	-
261.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
262.	4	5	-	-	-
263.	3	3	-	-	-
264.	3	-	-	-	-
265.	-	1	-	-	-
266.	-	-	-	1	-
267.	-	-	1	-	-
268.	-	-	2	-	-
269.	-	1	-	-	-
270.	1	2	-	-	-
271.	1	-	-	-	-
272.	7	6	1	1	1
273.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
274.	2	4	-	1	-
275.	13	20	3	5	1
276.	1	6	2	1	-
277.	-	2	-	-	-
278.	-	1	-	-	-
279.	-	3	-	-	-
280.	1	-	-	-	-
281.	-	2	-	1	-
282.	-	1	-	-	-
283.	-	1	2	-	-
284.	-	-	1	-	-
285.	-	1	1	-	-

1.	2.	3.	4.	5.	6.
286.	-	-	1	-	-
287.	-	-	-	-	1
288.	1	-	-	-	-
289.	-	1	-	-	-
290.	-	1	1	-	-
291.	1	-	-	-	-
292.	-	-	1	-	-
293.	-	-	1	-	-
294.	-	-	1	-	-
295.	-	-	1	-	-
296.	-	-	1	-	-
297.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
298.	-	-	1	-	-
299.	-	-	1	-	-
300.	1	-	2	-	-
301.	-	1	-	-	-
302.	1	-	-	-	-
303.	-	-	1	1	-
304.	1	-	-	-	-
305.	-	-	1	-	-
306.	-	-	1	-	-
307.	-	-	1	-	-
308.	-	1	-	-	-
309.			-	-	1

1.	2.	3.	4.	5.	6.
310.	-	-	1	-	-
311.	-	1	1	-	-
312.	-	-	-	1	-
313.	-	1	-	-	-
314.	-	-	1	-	-
315.	-	-	1	-	-
316.	-	-	1	-	-
317.	-	-	1	-	-
318.	-	1	-	-	-
319.	-	-	1	-	-
320.	-	-	1	-	-
321.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
322.	1	-	-	-	-
323.	-	-	-	1	-
324.	-	-	1	-	-
325.	-	-	1	-	-
326.	-	-	1	-	-
327.	-	-	1	-	-
328.	-	-	-	1	-
329.	-	-	1	-	-
330.	-	-	1	-	-
331.	-	-	1	-	-
332.	-	1	-	-	-
333.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
334.	3	2	4	-	1
335.	1	4	1	2	-
336.	-	-	-	1	-
337.	7	3	5	-	-
338.	-	-	1	-	-
339.	1	-	2	-	-
340.	-	-	1	-	-
341.	-	-	-	1	-
342.	-	1	-	-	-
343.	-	1	-	-	-
344.	-	-	1	-	-
345.	2	3	1	-	-

1.	2.	3.	4.	5.	6.
346.	-	-	5	-	-
347.	1	5	1	1	-
348.	1	6	1	1	-
349.	2	3	3	-	-
350.	-	2	3	-	-
351.	-	2	1	-	-
352.	-	1	-	-	-
353.	-	1	1	1	-
354.	-	-	2	-	-
355.	-	1	-	-	-
356.	-	-	-	1	-
357.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
358.	-	1	-	-	-
359.	1	6	11	4	-
360.	2	35	3	1	1
361.	-	4	-	-	-
362.	-	1	-	-	-
363.	-	1	-	-	-
364.	-	1	-	-	-
365.	-	-	1	-	-
366.	-	1	-	-	-
367.	-	1	-	-	-
368.	1	-	-	-	-
369.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
370.	-	6	2	-	-
371.	3	5	-	-	-
372.	4	1	1	-	2
373.	3	3	2	1	-
374.	-	4	2	1	-
375.	-	-	-	1	-
376.	4	6	9	3	-
377.	-	1	-	-	-
378.	-	1	-	-	-
379.	2	11	1	11	1
380.	-	-	-	1	-
381.	-	3	-	-	-

1.	2.	3.	4.	5.	6.
382.	-	1	-	-	-
383.	-	2	-	-	-
384.	-	-	1	-	-
385.	-	1	-	-	-
386.	-	1	-	-	-
387.	-	2	-	-	-
388.	-	1	-	-	-
389.	-	-	-	1	-
390.	-	1	-	-	-
391.	-	5	-	-	-
392.	-	1	-	-	-
393.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
394.	-	-	1	-	-
395.	-	-	1	-	-
396.	1	3	-	-	1
397.	1	-	-	-	-
398.	-	1	-	-	-
399.	-	1	-	-	-
400.	6	7	2	2	6
401.	-	5	3	1	1
402.	1	-	-	-	-
403.	-	1	-	-	-
404.	-	6	-	-	-
405.	-	2	-	-	-

1.	2.	3.	4.	5.	6.
406.	2	4	-	1	-
407.	-	1	-	-	-
408.	-	1	-	-	-
409.	-	1	-	-	-
410.	1	3	-	-	1
411.	-	-	1	1	-
412.	-	-	1	-	-
413.	-	-	1	1	-
414.	-	-	1	-	-
415.	1	-	-	2	-
416.	2	1	2	5	1
417.	-	1	-	1	-

1.	2.	3.	4.	5.	6.
418.	-	1	-	-	-
419.	-	2	-	-	-
420.	-	-	1	-	-
421.	-	1	-	-	-
422.	-	-	1	-	-
423.	1	-	-	-	-
424.	-	1	-	-	-
425.	-	1	-	-	-
426.	-	-	1	-	-
427.	-	-	-	-	1
428.	-	-	-	-	3
429.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
430.	-	-	-	-	1
431.	-	-	1	-	-
432.	-	-	1	-	-
433.	-	-	1	-	-
434.	-	1	-	-	-
435.	-	-	1	-	-
436.	-	-	1	-	-
437.	-	6	-	-	-
438.	-	5	-	3	-
439.	-	1	-	-	-
440.	-	1	-	-	-
441.	-	2	-	1	-

1.	2.	3.	4.	5.	6.
442.	1	1	-	-	-
443.	3	6	1	1	-
444.	1	6	3	-	-
445.	2	1	1	2	-
446.	-	3	1	-	-
447	1	-	-	-	-
448.	1	1	-	-	-
449.	-	-	1	1	-
450.	-	1	-	-	-
451.	1	-	-	-	-
452.	-	-	1	-	-
453.	-	-	-	1	1

1.	2.	3.	4.	5.	6.
454.	-	3	-	-	-
455.	-	-	1	-	-
456.	-	-	-	-	2
457.	-	2	-	-	-
458.	1	-	-	-	-
459.	3	6	1	-	-
460.	-	-	1	-	-
461.	13	9	3	-	-
462.	-	1	-	-	-
463.	3	6	-	-	-
464.	4	11	-	-	-
465.	-	-	1	-	-

1.	2.	3.	4.	5.	6.
466.	-	1	-	-	-
467.	-	-	1	-	-
468.	-	1	3	-	-
469.	-	1	-	-	-
470.	-	1	-	-	-
471.	1	-	-	-	-
472.	1	-	-	-	-
473.	-	-	-	1	-
474.	-	1	-	-	-
475.	1	3	6	2	-
476.	-	-	2	1	-
477.	-	1	1	2	-

1.	2.	3.	4.	5.	6.
478.	-	2	-	1	-
479.	-	1	-	-	-
480.	-	1	-	-	-
481.	-	1	-	-	-
482.	-	-	-	1	-
483.	-	-	1	-	-
484.	-	1	-	-	-
485.	-	1	-	-	-
486.	1	-	-	-	-
487.	-	-	1	-	-
488.	-	-	1	-	-
489.	-	2	-	-	-

1.	2.	3.	4.	5.	6.	1.	2.	3.	4.	5.	6.
490.	-	1	-	-	-	502.	-	-	1	-	-
491.	1	-	-	-	-	503.	-	1	-	-	-
492.	-	1	-	-	-	504.	-	1	-	-	-
493.	1	1	1	-	-	505.	-	1	-	-	-
494.	1	-	-	-	-	506.	1	-	-	-	-
495.	-	1	-	-	-	507.	1	-	-	-	-
496.	-	-	1	-	-	508.	-	1	-	-	-
497.	-	1	-	-	-	509.	-	1	-	-	-
498.	1	-	-	-	-	510.	-	2	-	-	-
499.	-	1	-	-	-	511.	-	1	-	-	-
500.	1	-	-	-	-	512.	-	2	-	-	-
501.	-	1	-	-	-	513.	-	1	-	-	-

TABLE VI

CULTUREWISE DISTRIBUTION OF HIGH FREQUENCY GRAFFITI.

IRON-AGE BURIALS

Order of High Frequency**		Symbol No.	High Frequency
1.	...	228	30
2.	...	17	29
3.	...	52	17
4.	...	210	15
5.	...	252 } 275 }	13
6.	...	1	12
7.	...	2	11

IRON-AGE HABITATION

Order of High Frequency**		Symbol No.	High Frequency
1.	...	228	86
2.	...	52	77
3.	...	210	74
4.	...	1	44
5.	...	2	29
6.	...	211	24
7.	...	69, 70 }	23
8.	...	252	22
9.	...	3, 229, 275 }	20
10.	...	201	19

** The Graffiti with frequency of 10 and more are alone chosen.

CULTUREWISE DISTRIBUTION OF HIGH FREQUENCY GRAFFITI.

CHALCOLITHIC

Order of High Frequency**		Symbol No.	High Frequency
1.	...	86	16
2.	...	108	14
3.	...	359	11
4.	...	3	10

** The Graffiti with frequency of 10 and more are alone chosen.

DISTRIBUTION OF HIGH FREQUENCY GRAFFITI COMMON TO ALL CULTURES

Symbol No.		Iron-age Burials		Iron-age Habitation	Chalcolithic
1.	...	12	...	44	-
2.	...	11	...	29	-
52.	...	17	...	77	-
210.	...	15	...	74	-
228.	...	30	...	86	-
252.	...	13	...	22	-
275	...	13	...	20	-

TABLE VII

SITE-WISE AND PERIOD-WISE DISTRIBUTION OF THE LIGATURED GRAFFITI WITH THEIR LENGTH

SITE-WISE DISTRIBUTION OF THE LIGATURED GRAFFITI WITH THEIR LENGTH

PRE-HARAPPAN

		TWO SIGNS.	THREE SIGNS.	FOUR SIGNS.	FIVE SIGNS.	SIX SIGNS.	SEVEN SIGNS.	OVER-LAPPING	TOTAL
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.	AMRI	5	3	-	-	-	-	7	15
2.	QUETTA	1	2	-	-	-	-	2	5
3.	GANESHWAR	1	2	-	-	-	-	1	4
		7	7	-	-	-	-	10	24

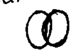
But the present author has the advantage of studying the South Indian graffiti from numerous excavated sites with their stratigraphical context and well established chronological frame. For instance, certain sites like Tirukkampuliyur, Alagarai, Vallam and Kodumanal which enabled the present author to equip himself with substantial volume of material to make an attempt to compare the South Indian graffiti with the basic signs of the Indus script. There are 120 graffiti similar to Indus signs. In other words, it may be said that nearly 25% of the Indus signs has perculated into the South Indian Iron age graffiti fabric.

The graffiti thus exposed and collected have given a new dimension to the significance and meaning of graffiti and their relevance to the decipherment of the Indus script. Since no bilingual or multinlingual texts have been found, the decipherment of the Indus script has not made much progress inspite of serious attempts made by scholars like Asko Parpola, I. Mahadevan, S.R. Rao, Krishna Rao and others. Further, it is believed that the Indus people would have certainly recorded economic accounts and other information on perishable materials such as palm leaves, the traditional writing material of the scribes. This is another handicap for the decipherment work. Therefore at this juncture, the find of thousands of graffiti had whipped the present author to prepare a concordance of such graffiti. This will be of some use for the scholars in their difficult task of the decipherment of Indus script.

It is believed that the potters' marks on the neolithic ceramics are the fore runners of real writing in most of the foreign countries. These are found as early as 5th Millennium B.C. in Su Siana, Western Iran, and prior to the emergence of Proto-Elamite writing.

As said earlier there are numerous potters' marks seen on the Pre-Harappan, Early Harappan pottery from Balakot in Pakistan, Damb Sadaat I-III and other sites in Quetta Valley.

Most of these marks seem to be numbers and those on the pottery of the Harappans consist of such numbers[3]. It is interesting to observe

that the Indus valley graffiti representing numbers have been evolved from the potters' marks done by finger nails. For instance the semi-circle seen in the Indus script is suggestive of number ten or tens. Similarly the most common and characteristic sign to the Indus script namely the Jar  and the spear head  and the intersecting circles  are seen as graffiti or potters marks on the Pre-Harappan pottery.

Therefore the potters' marks or the graffiti existed throughout the vast area in the Indus valley region many centuries prior to the emergence of the Indus script. The possibility that these marks would have been adopted as graphemes in the script cannot be ruled out altogether. Since the Indus script was created independently within a short period of time, these marks and certain graffiti could have been picked up by the Harappans for inclusion in the script. Moreover the Indus script cannot be derived from any other known script of the times as the script was already fully developed and standardised as early as the 26th Century B.C.

It was believed that the Indus script was forgotten after the fall of the Indus civilisation. However at Daimabad the script seems to have survived upto the end of the 2nd Millennium B.C. The discovery of numerous ligatured graffiti with Indus signs in the Chalcolithic and South Indian Iron age sites (Figs. 35-38) is suggestive of almost the rebirth or survival of the Indus script in Deccan and South India. Therefore, the Indus script did not die at Daimabad but survived under the earth for several centuries and the last breath of the Indus script was let off in South India more particularly in Tamil Nadu. It was allowed to have a peaceful death in the soils of the Dravidians who are supposed to have been the authors of the script. Whatever may be the route, the script travelled all along to reach South India, the Dravidian country; destiny has brought it to this land and the providence was in its favour to allow it to have its last breath in South India, the land of the Dravidians.

The Iron age graffiti (Figs. 39-49) from South India may be interpreted as an off shoot of the Indus script, but before that it has to be established

or atleast explained whether these graffiti constitute wholly or partly any script at all. This has been explained in earlier chapters.

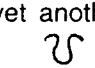
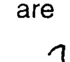
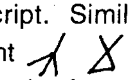
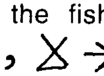
The Indus signs have been equated with similar looking signs in other archaic scripts and read with their phonetic values[4]. But these readings fail to make good sense because one and the same sign is given different values and one and the same value is assigned to different signs. These attempts have been made only to advance our knowledge about the problems of the decipherment of the Indus script. In this way the graffiti could have been equated with similar looking signs or letters in the Indus script but the former could not be read as the signs in the Indus script have not yet been satisfactorily interpreted.

There is no doubt that the Indus script remains as the earliest form of real writing in India and may be considered as a Morphy Morphic (logo syllabie). In the script, the pictographic sign may denote the object represented by it or it may denote any of the words or morphomes of the language underlying the script which were phonetically similar to the word naming the depicted object. Therefore unless the individual signs are deciphered the Indus script will remain undeciphered.

But there is yet another problem, most of the Indus signs are so simplified that their pictorial meaning could not so easily be extracted. However, there are a few pictographs whose forms are clearly identifiable and they could provide some clues as to the nature of the script as well as to the processes of decipherment. Among the graffiti also there are a good number of symbols whose forms are identifiable and their pictorial meaning may be read. These symbols, if stylised and simplified could not afford evidence or clues to their identification and meaning. But a careful and close examination of these graffiti may throw some light on the identification of the simplified and stylised signs of the Indus script; ie. the process or stages of simplification or stylisation or symbolisation of such signs could be traced or detected. But it is not so easy to trace the process of simplification of these graffiti. However, it could lead to deliver some hypothesis regarding the formation of the graffiti like signs percolated into the Indus script.

Therefore a comparison of the graffiti and signs or symbols that look alike or slightly variant in the Indus script has been attempted in the present work and it could help scholars to pronounce fresh hypothesis about the decipherment of the Indus script. It is hoped that the comparative study will certainly add new dimensions to the problem of the decipherment of the Indus script, because the single graffiti marks representing Indus signs could be taken as a letter forming part of the Indus script. Therefore they have some significance.

For instance the fish symbol is read mīn which stands for the word star in the ancient Dravidian Literature. Similarly numbers as many as six preceding the fish sign may give the reading as **aru-mīn** in Tamil (Six stars). The six star group was a familiar theme of the ancient Tamils and this theme has been shown in the Indus script. The graffiti representing fish has been frequently met with and it may be read and be given the same value or meaning as said above. But this fish sign occurs alone or in association with other signs both in the Indus script and graffiti and their meaning are subject to modifications and various interpretations. The identification has also been accepted by Soviet Scholars and by Mahadevan.

A ligatured graffiti from Korkai Justifies the reading (Pl. XII-3). Here the **mīn** is shown in a lower plane and the star at a higher plane. The fish here means the star shown in the higher plane (ie. sky). The same pair has been also noticed in Kodumanal. This may also stand for the word Arumīn (Six star). As these two symbols may stand for Mīn and numeral six respectively. Similarly, yet another most common sign in the Indus script is the so called jar sign  . There are many variants of this symbol in the Indus script itself. However, the jar symbol is rarely met with as graffiti. There are only two occasions where it could be located and that looks like  the Brahmi letter la. This sign has been identified as head (**Maṇḍai** or **Talai** in Tamil) and the value **ma** or **talai** is given to this sign (Chapter V). This identification may help to assign value to this sign in the Indus script. Similarly the fish is accompanied by the numerals four and eight  , 
Here the technique of showing the numerals in the form of star is unique

and rare and represents the South Indian genius. And they may be read as **Nānmīn, Eṇmīn** standing for four stars and eight stars respectively. The significance of these star groups is yet to be realised. This star symbol seldom occur in the Indus script.

Similarly, the graffiti identified as natural pictographs, conventional pictographs or ideographs and logographs earlier in Chapter VII may be equated with such of those signs in the Indus script and values may be assigned.

These readings would lead one to ponder over the theory of the Dravidian origin for the Indus script. The similarity between the Indus signs and the South Indian Pre and Early Iron age graffiti may lend colour to this theory. Further, the ligatured graffiti with Indus signs from South India proves beyond any ray of doubt that the Dravidian (Tamilians) are the descendents of the Harappans. This has been demonstrated with substantial evidence in Chapter VII. But there is a limit to this approach.

This is how the graffiti can come to our help to render meaningful reading of the unreadable Indus signs.

B. GRAFFITI AND BRAHMI - THE RELATIONSHIP :

Out of a total of 513 prominent graffiti there are about 72 which have been picked up on the basis of the similarity with those of such Brahmi letters of either South Indian or North Indian characters (Figs. 50, 51). These signs occur alone or in association with other signs. as ligatured graffiti. These graffiti have been reported from the Iron age, Chalcolithic, Harappan and Pre-Harappan levels. However, those from South Indian Iron age context had out-numbered those from other cultural contexts (Table IX).

Iron age level : It may be borne in mind that such of those marks reported from the Iron age levels may be taken to stand for Brahmi letters on their face value. The reasons for such identification are given below :

GRAFFITI :

1. Their size is that of an ordinary letter of an archaic script or slightly bigger, but they are boldly drawn on the vessels.

2. Most of them belong to a period or levels dated from 300 B.C.-200 A.D. or even earlier. But this chronology needs revision on the basis of our hypothesis pronounced in the beginning of the present work in Chapter II.

3. There are also instances where they have been found in association with Brahmi inscribed sherds. Hence there is every possibility that the potters or the authors of these marks could have picked up such of those letters that could have suited their purpose such as to record their initials or the shortened form of their names or clans or associations etc. In such cases, we could presume that the Brahmi script was familiar with the people of those areas. Therefore these graffiti may be identified as Brahmi letters and read.

4. There are still a few which were reported from the Pre-Brahmi stratified deposits of the Iron age sites wherein both the inscribed sherds and graffiti are reported. In such cases, the graffiti may be termed as Brahmi letter like signs and which could be the source of information for the potters or owners is a matter of guess. They could have probably picked up these marks either from the Pre-Harappan graffiti or the Indus script or from any other archaic scripts or graffiti found outside India known to them or heard by them. But this will become true only when these marks are identified with the graffiti or letters in the scripts of such countries. A few Brahmi letters have parallels in them (Figs. 52-55). The analysis tends to establish the existence of such contacts between people of different cultures or of different countries or regions, but the problem is that our Pre-Brahmi graffiti are separated from the Pre-Harappan and the Indus and other archaic scripts and graffiti in time and space. Though there is a vast gap of time and space, they could be

narrowed down as suggested earlier in Chapter II. For this it may be explained that the South Indian early Iron age people would have received the ideas or letters from those of such materials either through the migrants or migration of ideas. This is borne out by the fact that there are as many as 135 graffiti which have exact parallels in the Indus signs and (Figs. 39-49) a fairly good number of them are analogous to the letters of the ancient scripts and graffiti of many other countries (Figs. 17-24). There is another possibility that these graffiti of the Pre-Brahmi levels could have formed part and parcel of an archaic script other than the Indus script which could have been in practice in India or more particularly in South India in the Pre-Iron age. This has been demonstrated earlier in Chapters VI & VII.

5. Graffiti are also reported from sites where inscribed sherds are completely absent. There are more than half a dozen sites in South India where this phenomenon is noticed. The sites are Tirukkampuliyur, Guttur, Mallappadi, Maski, Brahmagiri, T. Narasipur etc. It is interesting to note that Tirukkampuliyur which yielded a bulk of graffiti does not bear any evidence for the use of Brahmi script on the pottery in that site, but the Brahmi letter like signs are seen among the graffiti in a considerable number (Pl. XIV). This does not mean that Brahmi script was not known to the potters of the site. It may be presumed that the Brahmi script was not familiar with the common folk of the region to that extent to warrant them to use it on the pottery. But it is interesting to observe that another site Alagarai which lies hardly 10 Kms. from Tirukkampuliyur has produced a feeble evidence for the use of Brahmi on the pottery in that area. According to the excavator, a fragmentary sherd with two pre-firing Brahmi letters has been recovered from this site[5]. Though the signs appear as Brahmi letters, their morphology or even palaeography bring these signs very close to the graffiti rather than Brahmi. They are pre-firing, very thick and deeply cut and on palaeographical grounds, this sherd may be one of the earliest inscribed sherds of the Proto-Brahmi script, introduced into Tamil Nadu. The levels which yielded this sherd may be assigned to 3rd Century B.C. or even earlier. This dating is earlier than that of the inscribed sherds reported from Arikamedu and other sites. The Alagarai signs may be taken to represent the transition from the graffiti to the Brahmi letters or these signs could be taken for Proto-Brahmi signs.

The Brahmi script seems to have captured the imagination of the common people in this area, subsequently as evidenced from the collection of considerable number of inscribed pot sherds from sites such as Uraiyur, Karur etc. located in the same region. But at this juncture one should bear in mind that Uraiyur and Karur are town sites or urban centres and therefore elites among the common folk or the traders or the religious personalities living in these areas would have been responsible for the adoption of this script on the pottery in this region. This is strengthened by the fact that other town sites like Kanchipuram, Arikamedu, Kodumanal, Vallam etc. have yielded the inscribed Brahmi sherds in a considerable number.

Further a few ligatured graffiti from the above mentioned sites exhibit the mixture of Brahmi letters and graffiti or super imposed Brahmi letter like signs as the case may be thereby throwing some clues into the introduction or the evolution of Brahmi script on the pottery in this regions. It is a known fact that there are a considerable number of cave inscriptions of Brahmi characters found in and around this region and their date has been fixed not earlier than the 3rd Century B.C. But the inscribed sherds and the ligatured graffiti from the same region may not be coeval the and the latter may be assigned to a date earlier than the 3rd Century B.C. on the basis of the pottery types. For instance the pottery like the dull thick red ware, the thick black and red ware bearing graffiti and Brahmi letters may be assigned to a period earlier than 3rd Century B.C. The chronology of these wares in the lower Kavery Valley region[6] may be slightly earlier than that of the other sites like Arikamedu, Kanchipuram etc., where from also came a good collection of graffiti and inscribed pot sherds.

Therefore the study of individual graffiti, ligatured graffiti and the Brahmi letters like graffiti suggests an earlier beginning for the Brahmi Script in South India more particularly in Tamil Nadu. In majority of the sites, the graffiti was in use even after the introduction of Brahmi script upto 3rd Century A.D. Since then, the tradition of graffiti was discontinued as evidenced from the pottery of the early medieval times ie. 3rd Century A.D. onwards in sites like Tirukkampuliyur, Kodumanal etc. The graffiti from the post-Brahmi levels seem to have been the survivals of the early Iron age and the number of such graffiti reported has slowly and steadily decreased and the inscribed sherds made their apearance in a considerable number since first century A.D. as seen in sites like Arikamedu, Uraiyur, Karur, Kodumanal, Vallam etc.

6. Tracing back the history of the graffiti, as Lal has indicated they may go back to the Harappan times. The present study takes it further back to the Pre-Harappan times. It is worth considering at this juncture the Brahmi letters such as **ē,ō,Ka,Ca** are exactly the same as graffiti in the Pre-Harappan sites.

Coming to the Chalcolithic period, the graffiti tradition has once again reared its head and a good collection of them was made in sites like Rangpur, Daimabad, Navdatoli etc. A comparative study of the graffiti from the Iron age sites in Soutn India with that of the Chalcolithic, Harappan and Pre-Harappan sites tend to suggest some relationship between them (Table IX) (Figs. 50-51).

There are also a few simple or compound or ligatured graffiti which could be identified as Brahmi letter like signs. In a few cases signs are superimposed and the superimposed signs could be split into two or three and could be identified. It seems that the Pre-Harappan and Chalcolithic graffiti had influenced the South Indian Iron age potters' thinking and as a result a number of graffiti of the former cultures made their appearance on South Indian Iron age pottery. This fact shows the existence of some sort of contacts between the people of the different cultures that flourished in different regions far removed in space and time. These graffiti have supplied enough signs for the South Indian Iron age people to reproduce them exactly on their vessels or to modify them to suit to their culture and purpose and to evolve some sort of a primitive system of writing or a pictographic writing to communicate with the people of the Chalcolithic and Pre-Harappan regions. This is amply borne out by the location of a considerable number of ligatured graffiti consisting of common signs. The identification of this system is very difficult but it could be said that the graffiti of these periods could have certainly contributed certain signs to the formation of South Indian Brahmi script, either directly or through the Proto-Brahmi script. The morphology of certain graffiti also suggests that they could have been part and parcel of some sort of an archaic script or atleast pictographs or ideographs or Proto-Brahmi or Brahmi after the disappearance of the Indus script. According to one school of thought the Brahmi letters are the natural development of the Indus Valley signs[7]. But the problem is that hundreds of years had rolled down from the time of the Harappans till the time when Asokan inscriptions were introduced on the rock surfaces and pillars. Hence this suggestion cannot be accepted for the present. The similarity between the Indus signs and the Brahmi letters may be accidental.

But the location of nearly 72 graffiti resembling most of the Brahmi letters ventures to float the hypothesis that the graffiti tradition of the Pre-Iron age, the immediate predecessor of the Brahmi script (rather than the distant predecessors, the Pre-Harappan graffiti or the Indus script) could have acted as a catalyst to systematise the formation of the Brahmi letters either directly or through the Proto-Brahmi script referred to earlier. This is strengthened by the Maharajakadai painted letters. These painted letters which appear as Brahmi letters are to be classified as graffiti and not as pure Brahmi. These letters are in the transition stage from graffiti to Brahmi as noticed at Alagarai. These painted letters seem to have formed part of a script of the Pre-Brahmi period. Based on this it may be said that the graffiti of the Pre-Brahmi period or the Pre-Iron age may be the progenitor of the so called Tamil-Brahmi of South India. This script has been termed as Proto Brahmi or Tamil Script.

There are other theories put forward by eminent scholars for the origin of Brahmi script in South India. According to Mahadevan and Nagaswamy the Tamil Brahmi was the adoption of Asokan Brahmi or was contemporary with it[8].

T.N. Subramanian expressed the view that the Tamil Brahmi script should have been designed for a Dravidian language, very likely Tamil and later on adopted for Prakrit. He has assigned the date of 3rd Century B.C. to the Script[9]. K.G. Krishnan also held the view that the Tamil Brahmi was independently existing. He has further observed that a stage can be envisaged when a basic Brahmi alphabet was probably in use all over India[10]. K.V. Soundararajan thinks that Tamil Brahmi was co-existing with Asokan Brahmi and for both scripts there was a common script, devised out of a fused Aryo-Dravidian. He further feels that the common script could have been existed during the period from 950 to 600 B.C.[11].

A careful analysis of the abovementioned theories particularly the theory of T.N. Subramanian, K.G. Krishnan and K.V. Soundararajan clearly demonstrates the possibility of the existence of a Proto-Brahmi script all over India including Tamil Nadu during the period earlier than 3rd Century B.C. or earlier than the introduction of Asokan Brahmi. The present author fully shares the opinion of the scholars.

Further the present study of graffitology takes the present author to the possibility of declaring the existence of a Proto Brahmi script atleast in South India prior to the Introduction of Brahmi script. In other words it may be declared that the graffiti of the Pre-Brahmi and Pre-Iron age period may be the progenitor of the Tamil Brahmi script and this has been demonstrated earlier in Chapter IV. The Proto-Brahmi may be the script of Tamil Nadu of that period ie. Pre-Sangam age and it may be also termed as Tamil Script for the present.

REFERENCES

1. Asko Parpola, "The Indus Script, A Challenging Puzzle" **World Archaeology**, Vol.17, No.3, 1986, PP. 400-403.
2. S.R. Rao, **Op. Cit.**
3. Asko Parpola, **Op. Cit.**, PP.404-406.
4. S.R. Rao, **Op. Cit.** See also Krishna Rao, **Indus Script Deciphered,** New Delhi, 1982.
5. D.R. T.V. Mahalingam, **Op. Cit.**, PP.310-311. The other sherd with the sign **Ka** mentioned by him looks like a graffiti rather than the Brahmi letter **Ka**. The excavator assigns a period from Ist century B.C. to 4th Century A.D. to these sherds. But a close scrutiny of the sherd suggests an earlier date. As he has himself admitted that they have been found at comparatively lower levels in the trenches and have to be assigned a fairly early period.
6. S. Gurumurthy, **Op. Cit.**, PP.103-128 - Also see, "Recent Archaeological Investigations and Tamil Culture". **B.I.T.C.**, 1976, PP.143-185. This is based purely on the personal observation of the sherds and their associate finds by the author himself.
7. G.R. Hunter, **Op.Cit.** PP.12, 21 and 49.
8. **Origin, Evolution Reform of the Tamil Script, Papers** published by the University of Madras, 1983. Also see S.P. Gupta and K.S. Ramachandran, **The Origin of Brahmi Script,** PP.81-83.
9. **S.I.T.I.**, Vol.III, Part II, PP.1600-1601.
10. S.P. Gupta and K.S. Ramachandran **Op.Cit.** P.69.
11. **Ibid.**, PP.63-65.

IX. THE ORIGIN AND DISTRIBUTION OF GRAFFITI IN THE ANCIENT WORLD

We have discussed in Chapter VI, the origin and evolution of numerous archaic scripts in the ancient world and their relevance or resemblance to Indian Graffiti. Let us now examine the distribution of graffiti in the various countries which served not only as cradles of human civilisation but also pioneers in the field of graffiti tradition. The graffiti from select countries like China, Egypt, Greece, Ceylon and Japan have been chosen for understanding their true characters and significance. Further, it was felt that a comparative study of the graffiti from the above mentioned countries with those from India will be of some use to explain the meaning of such graffiti in India. With this in view a comparative chart has been prepared and given in Figs. 52-55. The chart carries the common graffiti among these countries including India.

CHINESE GRAFFITI :

The Neolithic period in China is represented by the following cultures:

1. Yang Shao Culture (4800-4000 B.C.)

2. Ma Chia Yas Culture (2700-2000 B.C.) and Liang Chu Culture (3rd Millennium B.C.). The principal sites excavated and intensively studied are Pan P 'O' Village, Panshan, Ma Chang, Linwan, Lethusien and Langu Chu. All these neolithic sites yielded typical neolithic pottery. The graffiti or pot marks[1] on the neolithic pottery have been also categorised according to their chronology. The principal neolithic sites and their chronology and the graffiti collections are given below :

CULTURE	SITES	CHRONOLOGY	NO. OF GRAFFITI
a) Yang Shao Culture	Pan P.O. Village	4800-4000 B.C.	13
b) Ma Chia Yas Culture	Pan Shan Machang	2700-2000 B.C.	19
c) Ma Chia Yas Culture	Liuwan & Lethuhsien	2400-2000 B.C.	11
d) Liang Chu Culture	Liang Chu	3rd Millennium B.C.	9

There are more than 50 graffiti reported from these sites which are very similar to our Indian graffiti.

The graffiti include vertical and horizontal lines, plus, cross marks, two and three pronged arrows, swastika, comb, triangle, circle, square, wheel, mountain and damaru: A few of them resemble Brahmi like letters such as **ka**, **u o**, **pa**, **ta**, **ha**, **ru**, etc.

The comparative study of Indian and Chinese graffiti indicate that there are a large number of similar graffiti in both traditions. (Figs. 52-55).

EGYPTIAN GRAFFITI (ARCHAIC PERIOD) :

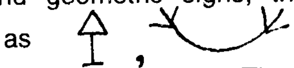
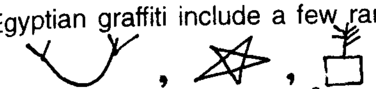
Excavations conducted by various scholars and agencies have brought to light abundant material to understand and appreciate the culture of the people of the Ancient Egypt, who lived during 3000 B.C. and 1000 B.C.

Massive structures, magnificient artefacts, mysterious grave tombs and their rich collection of typical Egyptian antiques, exquisitie pottery, wonderful paintings on the walls, informative inscriptions on the clay seals and walls make Egyptology as the richest branch of world Archaeology.

Among the Egyptian artefacts, pottery have special significance not only because of their deep antiquity, date and excellence in making but also for their possession of great varieties of pot marks and graffiti which throw a flood of light on the early palaeography or Origin of Writing in the Ancient Egypt.

EXCAVATIONS :

Excavations at various places especially at Sakkara[2] have yielded large number of graffiti bearing pot sherds. Further, the excavations at the tombs Nos. 3503[3], 3504[4], 3505[5], 3506[6], 3507[7], have produced large number of pottery with marks. The marks are mostly inscribed on the exterior of the large jars. They are marked either singly or in groups.

Some of the pot marks are similar to the graffiti found on the ancient Indian pottery. Besides the common linear and geometric signs, the Egyptian graffiti include a few rare symbols such as   . These have their parallels in India. There are many ligatured graffiti[8] similar to those found in India. Hence, the above said similarities cannot be taken lightly and need detailed examination. The Egyptian graffiti also come closer to the South Indian Iron age graffiti (Figs. 52-55).

The similarity in graffiti lends proof to the existence of contacts between these two countries right from the very beginning of the Dynastic rule in Egypt as early as 4th Millennium B.C. These contacts seem to have been a continuous process down to the Pre-Iron-age in South India, as evidenced from the Kilvalai and Dharmapuri paintings earlier discussed.

In the foregoing discussion only some select sites have been chosen from among the prominent sites excavated in Egypt to focus the attention of the archaeologists on the need for further probing in the subject of comparative Graffitology.

Egyptian pot marks and graffiti are voluminous in quantity and therefore it is very difficult for Indian archaeologists to dive deep into the ocean of the Egyptian Graffitology.

GREEK GRAFFITI :

Excavations conducted at various places by the classical archaeologists yielded rich collection of antiquities which bear testimony to the deep antiquity of the Greek civilisation. The excavations at Olynthus[9] have yielded few earthernware vessels bearing graffiti; potsherds with archaic Greek inscriptions too have been reported from many sites. There are morphological similarities between the graffiti on Indian pottery and the Greek graffiti (Figs. 52-55). The graffiti have been found either singly or in groups. They include symbols like the boar, comb, mango fruit like designs besides Brahmi letter like signs such as **ra, ta, da** etc.

The sherds bear the signs mostly on the rim portion as seen in South Indian inscribed pot sherds.

SRILANKAN GRAFFITI :

Sri Lanka, our neighbouring country has a vast collection of archaeological materials which attest to the past glory of the island. There are evidences to show that both countries were culturally tied up in the past. It is reflected very rightly on their pottery recovered from the various excavations in SriLanka belonging to the Iron age habitation sites and burials.

The burials excavated in Sri Lanka especially in and around Anuradhapura have brought to light numerous pot sherds carrying graffiti[10].

Majority of the graffiti are very similar to the Indian graffiti (Figs. 52-55). Ligatured graffiti also occur on the Sri Lankan pottery.

The chronology of the Sri Lankan graffiti may be fixed between 4th or 3rd Century B.C.and 1st or 2nd Century A.D. They are coeval with our South Indian Iron age graffiti.

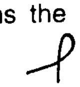
They occur on the black-and-red ware, black ware and red slipped ware of the Megalithic culture.

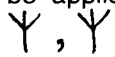
The individual graffiti represent mostly linear and geometrical designs; the stylised human figures also occur in considerable number and they recall similar figures on the Harappan wares and seals. The South Indian graffiti very rarely exhibit such stylised human figures. The fish symbol has been repeatedly seen. But the popular tree motifs, sun symbol, animal figures make their appearance sporadically. It is yet another feature peculiar to the Sri Lankan graffiti. As in South Indian graffiti the jar symbol seldom occurs.

There are a few ligatured graffiti consisting of two to four signs. The symbols in such ligatured graffiti resemble Brahmi or Brahmi like letters

such as **Ya**, **Ma**, **Ta**, **Va**, etc. This feature brings the graffiti closer to the Brahmi script as noticed in South India. Both graffiti and the Brahmi script existed side by side in Sri Lanka during the Iron age. The simultaneous occurrence of both tends to suggest that the graffiti would have played the Key role as some sort of writing in Sri Lanka even before and after the invention or introduction of the Brahmi script. This fact may drive home the point that the Brahmi script in Sri Lanka may be dated slightly earlier than the 3rd or 2nd Century B.C. More or less, the same phenomenon has been observed in south India also.

This is attested by the find of an interesting Bronze seal in the excavation of an Iron age bural site at Anaikotta[11] in Sri Lanka (Fig. 16-A). The seal carries six signs in two rows one below another. The upper and the lower rows contain three signs each. There are various readings offered to these signs. According to I. Mahadevan, the seal carries the Brahmi letters and they have to be read from right to left as the seal bears the negative impression of the signs. He has identified the lower row letters running from right to left as **Kō**, **Vē**, **Ta**, and the last sign in the left extreme of the top row as **na**. But the two other signs in the top row are left unread by him. Accordingly to him it reads as Ko, Ve, Ta na (Kōvēndan) meaning "the great ruler or Emperor". He is of the view that the other two signs in the upper row do not seem to be Brahmi letters. Further, these two signs are alike in shape. If they are not Brahmi letters, then they may have to be taken as graffiti. Even the sign on the left extreme on the top row does not look like a Brahmi letter and it may also be taken as graffiti. Therefore, it may be suggested that the upper row signs are graffiti and they may probably be substitute for the corresponding three Brahmi letters of the lower row. Then it may come closer to a bilingual script. Even then, the pair of similar graffiti on the upper row could not be satisfactorily identified as the same sign occurs twice for corresponding two different letters of the lower row.

If we beleive that if a sign has more than one meaning, then the pair of graffiti may be considered as substitutes for the two letters **Kō**, **Vē**, of the lower row. That means the same graffiti has to be read both as **Kō** and **Vē**. The third graffiti  may be the substitute for **ta** of the lower row.

Thus, the signs on the seal may be said to carry both the Brahmi letters and graffiti as their substitutes. This identification of the three graffiti has to be considered only to the composition of the script on the Ceylon seal only. The same value of each of these graffiti occurring either individually or in the ligatured graffiti in other sites either in Ceylon or India has to be applied with great caution, because the above said pair of graffiti  has been reported from Harappan sites and Kodumanal also. There is another possibility to identify all the six signs as Brahmi letters and accordingly the legend may be read. If so, they may be read as follows :

Upper row from right to left	**Ya**	**Ya**	**ma**	(m)
Lower row from right to left	**Kō**	**Vē**	**ta**	(nta)

Here, the letters are read from right to left as Mahadevan and other scholars have done earlier; but left extreme sign has been taken for **__ṇa__** by I. Mahadevan. It looks like Brahmi **__mā__** rather than **__ṇa__**. The **__ma__** has Bhattiprolu Brahmi **__ma__** character.

The letters may be read from top to bottom row. In ancient writing system there are instances where the scribe has incised the letters in rows starting from top portion. This feature has been also noticed particularly in a few cave inscriptions from Tamil Nadu. Since the excavation on rock surface always will begin from the top portion the scribe would have initially attempted to incise the letters from top portion. But this is not a common or usual procedure, adopted everywhere; it is rarely noticeable. Likewise, there are also instances where the letters have been incised upside down or in the reverse order. The best examples the Brahmi Inscriptions from Kilvalavu[12] and Kunnakkudi[13] respectively.

In the light of the foregoing discussion it may not be far wrong if we proceed to read the legend on the Ceylonese seal from top to bottom. There is one more point to be observed while reading the letters ie. the problem of reading the two **__Ya__** letters. Here the two may be read as long **__Ya__** (Yā) *as this is uncommon in the early Brahmi script of Tamil Nadu. Therefore, the final reading and translation of the letters of the top row*

from right to left is (Yam) meaning 'I' or 'Me' and the bottom row ie. **__Kō. Vē ta__** - "the Ruler or Great Emperor" (Mahārājā).

Putting the two rows together the meaning becomes "I, the great emperor or ruler or "I am the great emperor". Even today the Sri Lankan Tamil use **__Yām__** for 'I' or 'Me' and therefore the reading sounds meaningful. Even if the letter in the top left is taken for ṇa as Mahadevan does, the reading becomes **__Yāṇ__** - it is also the same meaning as **__Yām__** in Singalese Tamil.

JAPANESE GRAFFITI :

Recent excavations of Yoyoi, Nara Prefectare in Japan have yielded pot sherds bearing graffiti. It is an Iron age burial site. The chronology of the site is fixed between 300 B.C. and 300 A.D. The Japanese graffiti show similarities in their morphology with the graffiti on Indian pottery (Figs.52-55).

An interesting incised design[14] (probably be taken as a graffito) on a clay vessel depicting a pair of men on a boat reported from Karako belonging to the early middle period deserves special mention. The boats play a rather prominent role as a subject matter in the incisions of several tombs. Boats are incised on the walls of the rock-cut tombs at Onizuika[15], Midorikawa Kunnamoto etc. Details of incised men and boats on the walls of rock cut tomb at Takaids, Kashiwara, Osaka are also available[16]. It was believed in those days that they were associated with transporting of the soul of the deceased to another world. All boats are of usual gondola type[17].

It is interesting to observe that most of the Japanese graffiti represent the two and three pronged arrows, stylised birds, animal figures, trees and leaf patterns, horizontal wavy lines etc. These graffiti are very similar to those of South Indian Early Iron age graffiti (Figs. 52-55).

What is the significance of the similarity between the graffiti of these two countries? The similarity is not accidental but is due to some contacts

established between the Early Iron age people of South India and of Japan. However, there are not many graffiti yielding Iron age burials and habitation sites excavated in Japan which could alone offer substantial material to explain in depth the relationship. Further excavations could alone render meaningful explanation for existence of simalarity between the graffiti of these two great countries.

REFERENCES

1. William G. Boltz, **Op. Cit** P.430, Fig.3

2. Walter Emery, **Excavations at Sakkara, Great Tombs of the First Dynasty,** Vol II and III, London, 1954-57.

3. **Ibid.,** Vol. II, P.164, Fig.223.

4. **Ibid.,** Figs.100,101 and 102, Pl.81.

5. **Ibid.,** Vol.III, P.19, Pl.33

6. **Ibid.,** P.56, Pl.76.

7. **Ibid.,** P.88, Pl.III.

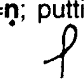
8. Walter Emery, **Archaic Egypt**, P.125, Fig.14.

9. David Robinson - **Excavations at Olynthus** (1934-38) Vol.6 (Pottery) Plates: 80-B, 89.67, 92.73, 124.9, 127.4, 210.645, 220.770, 225.847, 228.865, 235.911, 918, 919, 920 & 921; 254.1060 and 264.

10. **Ancient Ceylon**, No.2 (1972), P.123, Fig.17.

11. Indrapala, **Op.Cit. The Hindu,** 26th April, 1981. Prof. Indrapala, of Jaffna University, Sri Lanka, first discovered the seal and he has been kind enough to send me a photo copy of the same.

11. (a) According to the methodology of the present author, the reading of the three graffiti marks is to be done as follows :

 =**Iru Vēl**;  = **Min** ie.=ṇ; putting together it becomes **<u>Iru Vēlan</u>**, the name of a person. Since  comes as an end determinative.

It is given the value ṉ. In this case the graffiti may not appear as substitutes for Brahmi letters of the lower row, but seem to have been used in a different script ie. the pictographic or the Proto Brahmi. This means two different scripts are employed in the same legend and the real sense of which is yet to be realised.

12. T.V. Mahalingam, **Early South Indian Palaeography,** PP.60-61.

13. **Ibid.,**

14. J. Edward Kidder, **Japan**, PP.164-166,Pl.59 (1959).

15. **Ibid.,** Figs. 40, 411

16. **Ibid.,** Fig. '42

17. **Ibid.,** PP.164-166.

❖ ❖ ❖ ❖ ❖

APPENDIX - I

GRAFFITI AND SYMBOLS ON THE PUNCH MARKED COINS

Punch marked coins have been found all over India and the symbols on them are of various characters. They have been classified and studied by many scholars[1]. Majority of symbols are reported from certain principal sites. They are Bhir mound in Taxila, Mathura, Mirzapur, Chamanhuzuri, Sahet-Mahet, Ramnagar, Mamdar, Singavaran, Magadha, Golakpur, Vatsa, Kosala, Madipur, Eran, Kausambi, Ahichchatra, Kada, Kanauj, Ujjaini, Tripuri, Ayodhya and Amaravati. The tribal coins of the Audumbaras and Yaudheyas and some unattributed punch marked coins from Patna Museum also bear symbols of various kind.

The above mentioned sites offer varieties of symbols for a comparative analogy with those of the graffiti on ancient Indian pottery (Figs. 56-59). Besides Punch marked coins, the coins of the Cheras, Cholas and Pandyas of the Sangam age also bear symbols similar to the graffiti marks[2].

The chronology of the Punch marked coins may be tentatively put between 6th or 5th B.C. and 1st or 2nd century A.D. Therefore chronologically both the coins and the Early Iron age graffiti are coeval to a large extent with a few exceptions.

There are still a few symbols which may even be compared with the Pre-Iron age, Chalcolithic and the Pre-Harappan graffiti as well as Harappan signs.

The comparative study reveals that there are numerous graffiti similar to those of the symbols. There are still a few which could be traced on the Punch marked coins but slightly modified with addition of short strokes and pellets either at the extreme end of their arms or disposed slightly on the exterior of such graffiti and reproduced as symbols on the coins.

Most of the symbols on the Punch marked coins are common to all regions wherever they are found. This similarity in respect of the symbols on the coins from the various regions is unique and a rare feature which points to the dessimination of ideas and symbols over large tracts of the country. The Punch marked coins and their symbols bear testimony to the unity in diversity in ancient India.

Further the wide spread coin symbols resembling the graffiti is yet another proof for the wide distribution of the usage of such graffiti in that period though the latter are not reported from many regions or sites from where the above said Punch marked coins with similar symbols are reported. These symbols indirectly hint the existence of the tradition of graffiti in those regions, which could be brought to light by conducting excavations in these sites. This is the usefulness of the comparative analysis of the graffiti and the symbols on the punch marked coins for a given period. In addition to this, the comparative study establishes the impact of the tradition of graffiti felt on the coinage of the early India, and the execution of the graffiti on the coins is a delicate and intricate job as it involves not mere scratching but preparing seals with such symbols carved either on clay or terracotta or metal and punching them on the molten metal used for marking coins. Therefore the graffiti tradition had almost attained the status of an artistic work and the portraying such symbols became an ornamental craftsmanship.

At the same time like graffiti, the problem of identifying the symbols on the coins and their meaning remain a puzzle and baffle the scholars. The similarity between the graffiti and the punch marked coin symbols further complicate the subject.

At the present juncture we could say that the authors of the Punch marked coins have chosen and reproduced certain prominent graffiti on their coins without even any slightest alteration. But a few more graffiti have been reproduced with addition of short strokes or pellets and this enhances the value or significance of such graffiti. There is no doubt that these "Graffiti Symbols" hide something and the hidden meaning has to be brought to surface sooner or later.

The following are the graffiti marks with addition of dots or pellets reproduced on the coins :

1. The two armed symbol with pellets at their arm's end
2. The three armed symbol with pellets at their arm's end
3. The four armed symbol with pellets at their arm's end
4. The six armed symbol with pellets at the end of their arms
5. The ten armed tree symbol with pellets at the end of the arms or with three pellets only
6. The **Sula** with pellets at the end of the forks
7. Brahmi 'O' like letter with pellets on both sides
8. Brahmi 'Ya' like sign with a cluster of 7 pellets at the top
9. Four segmented squares with pellets at the centre of each square
10. Inverted 'V' letter like symbol with pellets.

What does the addition of pellets to certain graffiti symbols suggest? Do they have any significance? These are the questions to be answered; various explanations may be offered to answer these questions.

1. The pellets or dots or short strokes may be added to a symbol just for a decorative purpose.
2. They may be added to indicate the sacredness of the symbol
3. They may be added to indicate that the symbol symbolises an object emanating rays of light or heat or possessing invisible power. For instance the armed or multi armed symbols, the Ujjain symbol with addition of pellets may be taken for the Sun which emanates the light and heat and possesses invisible power. The pellets may be the symbolic representation of illumination also. The practice of illuminating the sacred structure like temple or sacred object like a planet has been in vogue from the remote past in India and this has been noticed in the Dharmapuri rock paintings (Figs. 14,15).

The study also indicates that the Proto-Brahmi Script or signs would have influenced the authors of the Punch marked coins as the chronology of the latter has been assigned to the beginning of 6th century B.C. A select group of graffiti is chosen and represented on the coins. But the difficulty in reading the symbols lies in the fact that they are not positioned in an orderly way either around the edges of the coins or in a series of lines as noticed in the coins of the later period, so as to consider them as part of a script. This may be due to the fact that our ancient people were not used to the habit of scratching legends or letters on the coins prior to the advent of the Greeks. But this handicap did not in any way deter them from portraying these symbols for purposes of conveying some names or ideas or actions or transactions.

It has already been demonstrated that there are a few symbols which could be interpreted as marks of Merchants' Guilds. Similarly some other symbols are identified as pictographs or logographs.

REFERENCES

1. Savitha Sharma, **Early Indian Symbols,** (Pl. 1-8).

2. R. Krishnamurthy, **Coins of Sangam Age (Tamil);** See also P.L. Gupta, Coins, (Pls. 1-3).

R. Vanaja - **Punch Marked Coins of Tamil Nadu** - Unpublished - M. Litt. Thesis, Madras University.

❖ ❖ ❖ ❖ ❖

APPENDIX - II

KILVALAI PAINTED LETTER - SIGNS - READING (FIG. 13):

There are two rows of signs. In the upper row there are five signs. Of these right extreme sign is a tree and it may be taken as a field symbol as seen on the Indus seals. The remaining four signs may be read from right to left as follows :

	VALUE	MEANING
Upper Row :	Udukkai - Mūn - Pen Ūr= Udukkai Muppenur -	Udukkai Muppenur the name of a village

The lower row has two signs in the upper plane and two others in the lower plane one below another.

	VALUE	MEANING
Left upper plane	Udukkai tūkkan or Damaru tūkkan	Damaru beater Drummer
Left Lower plane	Mādu Mādu or Iru mādu or Iru Kālai	Two bulls

If the two rows are put together and read the meaning is as follows:

The drummer hails from the village Muppenur.

MAHARAJAKADAI LETTER SIGNS - READING (FIG.13)

There are two rows of painted letter signs, the top row contains four signs and are read from right to left as follows :

	VALUE	MEANING
Top row	Mā Mā Mā Ūr= Mummānūr	Mummānūr the name of a village

Lower row has a series of seven signs. Of these three are human figures and the other four are numerals accompanying each of the former. They are read as follows :

	VALUE	MEANING
Lower Row	Intu āl - Pattu intu al - Impatu āl = Seventy men	Five men - Fifteen men Fifty men = Seventy men

If they are put together and read from top to bottom the meaning is as follows :

Seventy men are from the village Mummānur.

POST-SCRIPT

There are certain promising areas in Tamil Nadu if properly explored or tapped could expose the Pre-Iron age Rock Paintings and engravings. Of these the districts of South Arcot, North Arcot, Dharmapuri, Coimbatore and Tirunelveli are worth mentioning. Inaccessible hilly and wooded tracts of these districts possess the vestiges of the rock paintings and engravings. Some of the paintings from the districts of South Arcot, North Arcot and Dharmapuri have been brought to light very recently and their sufficient contribution to the study of Graffitology has been discussed in the earlier chapters of the present work. But somehow or other, the rock engravings of these areas have escaped the attention of the explorers. However, as reported earlier very recently the discovery of large panels of rock engravings have been reported from a place near Tindivanam in South Arcot District, they appear to belong to the Pre-Iron age.

The discovery has been brought to our notice since the completion of the present work. They have been placed at our disposal since then and an attempt has been made here to present the details of the rock engravings relevant to our study[1].

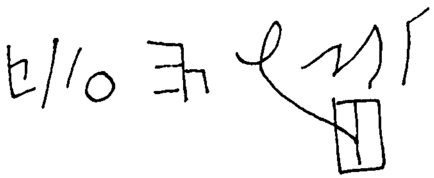
The engravings are located on the ceilings and walls of a dark narrow, interior passage leading to a deep natural cavern. There are four or five

huge panels measuring 3 metres length and 2 metres high. They seem to be narrative panels consisting of battle scenes, religious and magico-religious scenes. The human and animal figures are highly stylised and symbolised as in the case of rock paintings and sprinkled with letter like signs and graffiti marks.

They are deeply cut and engraved by a thick pointed instrument. There are stylised human figures holding sword or arrow, riding animals. Numeral signs such as short vertical or curvilinear strokes, small and big circles either alone or in series have been noticed accompanying the figures and events. In one of the panels is seen a pictographic inscription (Ligatured Graffiti) just in front of a rider with a river beneath him. This ligatured grafiti has a combination of Indus signs, Brahmi like letters and graffiti marks. It may be read from right to left as suggested for reading the ligatured graffiti earlier. It begins with a symbol  for village (Ūr).

There are also symbols representing trisula, wavy lines, tree, mountain etc. Besides these, there are four Brahmi letters engraved at the top left corner of this panel. These graffiti and the Brahmi inscriptions are under close examination. However a tentative identification and reading of the symbols in the Ligatured graffiti as well as Brahmi inscription are given below :

LIGATURED GRAFFITI (PART A)

FIGURE	VALUE	MEANING
	aram - malai - Mīn āru - irupadu āḷ (120 āḷ)	Steep mountain with star (above) or snake mountain with star (above) i.e. star above the steep mountain or snake mountain

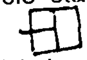
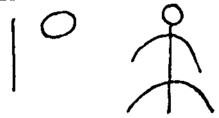
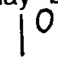
The circle stands for numeral 10 and strokes for 1 number. The ur symbol  is shown at the beginning in the right lower down of the graffiti. It may be a determinative symbol or it may stand for the village (ūr). Further below the ūr symbol is shown a rider with numeral signs and  separately. This is another part of the same event noticed in the panel, (Part B). It may also be identified and read as follows:

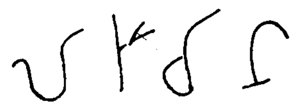
FIGURE	VALUE	MEANING
	Talai āḷ Pattu oṉṟu	Chieftain with ll men.

Here  may stand for all persons marching behind the Chieftain.

Combining the above mentioned two scenes Parts (A and B) in the panel it may be explained as follows :

The chieftain riding the animal is marching ahead;accompanying him immediately is a row of 11 men who were again followed by another group of 120 men. This event seems to have been taking place right under a steep hill or snake hill (ara malai) with star glittering at its top. The march may be said to have taken place during night. Since the numeral sign  is written just at the back of the chieftain, it may be taken that the men are following him. The village is also shown just above the Chieftain. That shows he is coming out of the village[2].

BRAHMI INSCRIPTION[3]:

FIGURE	VALUE	MEANING
	mā rā jar Talai rājar	Mahārāja ie. emperor or Chief of the rulers

In the Brahmi inscription the first letter  appears to be the jar symbol of the Indus script, rather than Brahmi **mā**. Hence, the present author supplied the value **taial** for this sign and read it as **talai rājar**. Both **mā** and **talai** stand for the same word 'Great' or 'Chief'.

These engravings are very useful to understand the system of Pictographic or Logographic writing of the pre-Iron age people. The sequential arrangement of the symbols to convey an event is shown in a curvilinear or parabolic line. But the narration is given in two parts in the same row from right to left (Fig. 60). They may have to be put together to extract the full meaning of the graffiti. This represents the archaic method of pictographic writing. The occurrence of Indus, Brahmi like signs and graffiti in the panel points to the Proto—Brahmi characters of the pre-Iron age. Further, the simultaneous presence of a short Brahmi inscription in the panel is unique as it offers best opportunity to measure the contribution of the Proto-Brahmi signs to the formation of Brahmi letters. Much cannot be said at the present juncture as they await further investigation.

REFERENCES

1. The rock engravings have been reported from Perumukkal village near Tindivanam in South Arcot District. The estampages of the rock paintings are with the Institute of Asian studies, Chennai.
2. The ligatured graffiti may be also read from left to right, as a few signs look like Brahmi letters. This is also under close examination.
3. Reading of the Brahmi inscription was provided by the discoverers of the engravings.

❖ ❖ ❖ ❖ ❖

BIBLIOGRAPHY

Agrawal, D.P. and Chakravarthy, Dilip, K. (Ed) — **Essays in Indian Proto History,** New Delhi, 1982.

Agrawala R.C. — "Aravalli", The Major source of Copper for the Indus and Indus Related Cultures, PP. 157 - 162, **The Frontiers of the Indus Civilisation**-(Ed), B.B. Lal and S.P. Gupta, New Delhi, 1984.

Aiyangar, S.K. — **Beginnings of South Indian History.**

Allchin and Allchin — **Birth of Indian Civilisation**

Arthur Evans — **Scripta Minoa**, Vol.I., 1909.

Asko Parpola,et. al., — **Progress in the decipherment of the Proto-Dravidian Indus Script.** The Scandinavian Institute of Asian Studies, Copenhagen, 1969.

Asko Parpola, — "On the Harappan 'Yoke Carrier' Pictograph and the **Kavadi** Worship" **Seminar of Tamil Studies,** Madurai, 1981, Vol. I. Sec.2, 1981.

Corpus of Indus Seals and Inscriptions, 1985.

"The Indus Script: A Challenging Puzzle" **World Archaeology,** Vol.17, No.3, 1986

Banerjee,N.R. — **The Iron Age in India,** 1965

Banerjee N.R. and Soundararajan, K.V. — "Sanur", 1950-52;**A.I.** No.15, PP.30-34.

Basham. A.L. "Some reflections on Dravidians and Aryans", **B.I.T.C.** Vol.2, P.225, University of Madras, 1963.

Bongard Levin, G.M. **Symbols of Granary on the Seals of Mohenjodaro and Harappa**, India Studies Past and Present, 1960, Vol.I, No.2, P.377.

Branfil, B.R. "Rude Megalithic Monuments in North Arcot District", **J.A.S.B.** Vol.XLIX, PP.8-10, 1980. **I.A.** No.10, 1881

"On the Savanadurga Rude Stone Cemetery Central Maisur", **I.A.**, Vol.10, 1881, PP.1-12.

Brice William, C. **The Copenhagen Decipherment of Proto Indic Script,** Review of A. Parpola et. al.1969, Kadmos, Vol.9. No.1, P.22

Bright William "Archaeology, Linguistics and Ancient Dravidian: Proceedings of the FIfth International Conference" - **Seminar of Tamil Studies**, Madurai, 1981, Vol.1, Sec.2, P.1.

Buhler, G., **Indian Palaeography.**

Burnell, A.C., **Elements of South Indian Paleography,** Second Edn. London, Year 1878.

Burrow Thomas "Dravidian and Decipherment of the Indus Script", **Journal of Tamil Studies.** Vol.2. No.1 1970. P.149.

Burrow T, and Emeneau, M.B. **A Dravidian Etymological Dictionary,** London, Year 1961.

Casal J.M., "Fresh Digging at Amri", **Pakistan Archaeology**, I, Karachi, 1964.

"Fouilies D', Amri, Paris, 1964.

"Fouilies D' Virampatnam, Arikamedu

"Sites Funerailes des Environs des Environs de Pondicherry.

Cemy J., **Paper and Books in Ancient Egypt.** London, University College, 1952.

Chakravorty, B.B., **Message of the Indus Script,** Indian Publications, Calcutta, 1976.

Chakravorty, B.B., **Decipherment of Indus Script. A New Light,** Indian Publications, Calcutta, 1975.

"Intermediate Stage between Indus and Brahmi Scripts", **Folklore** (India), Vol.20, No.2, P.51, 1979

Chandra Paresh Das Gupta, **The Excavations at Pandu Rajar Dhibi**. Calcutta.

Cornelius, J.T., "The Graffiti on the Megalithic Pottery of South India and Dravidian Origin." **Tamil Culture** Vol.12, P.287, 1966.

David Diringer, **The Alphabet**, 1947.
Writing. London. 1962.

Dales, George, F., "South Asia's Earliest Writing still Undeciphered", **Expedition**, Vol.9, No.2, P.30, 1967.

Dani, A.H., **Indian Palaeography**, 1963.

David Hawkins, "Writing in Anatolia: Imported and Indigenous Systems", **World Archaeology**, Vol.17, No.3., 1986.

David, M Robinson **Excavations at Olynthus**, (1934-38), Vol.6, (Pottery)

Deo, S.B., **Proto Historic Culture in India**.

Excavations at Takalghat and Kapa.

Deo, S.B. Ansari, Z.D., **Chalcolithic Chandoli**, Poona.

Edward, J. Kidder, **Japan**, (Thames and Hudson), 1959.

Emery, W.B. **The Tomb of Hemaka**, Cairo, 1938, P.41. **Archaic Egypt**, 1950.

Excavations at Sakkara, Great Tombs of the First Dynasty, Vol.II and III, London, 1954-57.

Fairservis, W.A. Jr. **Excavations at Allahdino III: The Graffiti A Model in the Decipherment of the Harappan Script,** Papers of the Allahdino Expedition, New York, 1977.

Excavations in the Quetta Valley, West Pakistan, New York, 1954.

Flinders Petrie **Ancient Egypt**, 1932, P.39.

Foote, R.B. **Indian Pre-Historic and Proto-historic Antiquities - Notes on their Ages and Distribution,** (1916).

Francois Vallat, "The Most Ancient Scripts of Iran, The Current situation", **World Archaeology,** Vol.17, No.3, 1986.

Gregory L. Possehl, and Raval M.H., **Harappan Civilisation and Rojdi**.

Gregory Possehl L., **Indus Civilisation in Saurashtra.**

Gordon Childe, **New Light on the Most Ancient East,** London, 1934.

Gupta P.L. **Coins**.

Gupta, M.N. "Indus Script Deciphered, New Insights gained", **Bullettin of the Ramakrishna Mission Institute of Culture,** Vol.31, No.2, P.43, 1980.

Gupta S.P. and Ramachandran, K.S. **The Origin of Brahmi Script,** PP.81-83.

Gurumurthy, S. "Recent Archaeological Investigations and Tamil Culture", **Bulletin of the Institute of Traditional Culture,** Chennai, 1976.

Ceramic Traditions in South India, Madras University, 1980.

"Iron-age Graffiti and the Indus Script" **Tamil Civilisation,** Tamil University, Tanjore.

Archaeology and Tamil Culture (Tamil) Madras University, 1972.

Gururaja Rao, B.K., **The Megalithic Culture in South India,** 1972.

Hall **The Ancient History of the Near East** PP.173-174.

Hans Nissen, "The Archaic Texts from Uruk", **World Archaeology**, Vol.IV, No.3, 1986.

Harden Donald., **The Phoenicians**, Penguin, 1971.

Haris, Z.S., **Grammar of the Phoenician Language**, New Haven, 1936.

Rev. Heras, H., **Studies in Proto-Indo-Mediterranean Culture**, Volume I, Bombay, 1953.

Hunter G.R., **The Script of Harappa and Mohenjo Daro and its connection with other Scripts,** London, 1934.

Indrapala, "Is it Indus-Brahmi Epigraph?", The Hindu, 26th April, 1981.

Issac Taylor, **The Alphabet**.

John D. Ray, "The Emergence of Writing in Egypt" **World Archaeology**, Vol.17, No.3, 1986.

John Gray, **The Cannanites**, (Thames and Hudson), 1964, P.22, Fig.3.

Joshi J.P., "Late Phase of the Harappa Culture, Evidence of Seals, Sealings and Graffiti", **Journal of Madhya Pradesh Itihas Parishad**, Vol.5, P.1, 1967.

Kaplony, P., **Die Inscription der Agyptischen Fruhzeit**, 3 vols. Wiesbaden, 1963.

Kramer, S.N., **History begins at Sumer**, 1961, P.21.

Krishnamurthy, R., **Coins of Sangam Age** (Tamil), Chennai.

Krishna Rao M.V.N., **Indus Script Deciphered, New Delhi**, 1982

Lal. B.B. "The Direction of writing in the Harappan Script", **Antiquity**, Vol.40, No.157, P.52, 1966.

Lal. B.B. "From the Megalithic to the Harappa, Tracing back the graffiti on Pottery". **A.I.** Vol.16, (1960), 1962.

Indian Archaeology since Independence, 1964

"Some Aspects of Archaeological Evidence relating to the Indus Script". **Puratattva**, No.7

Mackay, E.J.H., - **Further Excavations at Mohenjo Daro.**

Chanhudaro Excavations, 1935-36.

Madhivanan, R. **Sindhuveli Eluttin Thiravu**, (Tamil), Chennai, 1991

Mahadevan I. **The Indus Script - Texts Concordance and Tables**, Memoirs of the Archaeological Survey of India No.77, **A.S.I.**., New Delhi, 1977.

"Study of the Indus Script through Bilingual Parallels", **Ancient Cities of the Indus**, (Ed) G.L. Possehl, New Delhi, 1979.

"Dravidian Parallels in Proto-Indian Script", Journal of Tamil Studies, Vol.2, 1970, No.1, P.157.

Mahalingam T.V. **Report on the Excavations in the Lower Kaveri Valley,** Madras University Publication, (1970).

Early South Indian Palaeography University of Madras, 1974.

Malayandi S., "Glimpses of the Proto-Indian and Megalithic Deccan and South India through Epigraphical Evidence", **Aayvukkovai**, Vol.3, P.253, Annamalainagar, 1982.

Margabandhu and Sharma R.P. "Khataoli a Proto Historic Site" in **Archaeology and History**, (Ed) B.M. Pande and B.D. Chattopadyaya, PP. 287-94.

Marshall, J., **Mohenjodaro and Indus Civlisation** 3 Volumes, London.

Mason, A., **A History of Writing**, 1928

Mishra, V.D. "Pottery of Kausambi", **Potteries in Ancient India,** (Ed) By B.P. Sinha.

Nagaswamy, R. (Ed), **Damilika**, 1969

Nagaraja Rao, M.S., **Proto-Historic Cultures of the Tungabhadra Valley**, Dharwar, 1981.

Nilakanta Sastri, K.A., "An Inscribed pot sherd from Arikamedu", **J.M.U.**, Vol. XIV, 1942, No.1, PP.1-5.

Numa Laffittee, "A note on certain signs inscribed on Pottery found in ancient funeral urns in South India", **I.A.**Vol.LX,1931,PP.137-38.

Olga Tufnell, **The Iron Age, Lachish** IV.

Oliver J.P., "Certain Writing in the second Millennium B.C.", **World Archaeology**, Vol.17, No.3, 1986.

Pande, B.M., "On the Origin of the Harappan Sign" (Sign I.M.No.182), **Puratattva**, Vol.7

Pande, R.B., **Indian Palaeography**, I, 1952

Pattabhiraman, P.Z., **Les Fouillies D' Arikamedu**.

Pentti Aalto., "Indus Script and Dravidian, Studies in Indian Epigraphy", **Journal of the Epigraphical Society of India,** 1975, Vol.2, P.16.

Pran Nath, "The Script of the Indus Valley Seals" **J.R.A.S.** (London), 1931, PP.671-674.

Raman, K.V., (Ed) **Report on the Excavations at Uraiyur,** Madras University Publication, 1986-87.

Rao, S.R., "Excavations at Rangpur and other Explorations in Gujarat", **A.I.** No.18-19, PP.128-133.

"Late Harappan Daimabad", **Illustrated London News**, March, April, 1978.

"**Lothal**, 1955-62, (Memoirs of the Archaeological Survey of India). No.78, Vol.III.

"The Decipherment of the Indus Script, Mumbai, 1982.

Raghava Ayyangar, **Arayccittogai** (Tamil)

Ray, S.K. "Indus Script and the Graffiti from Sanur", **Indian Institute of Egyptology,** New Delhi, 1966.

Raymond Bloch, **The Etruscans**, (Thames and Hudson), 1958.

Rea, A., **A.R.A.S.I., S.C.**, 1903-1904

A.R.A.S.I., S.C., 1908-1909, PP.97-99

Catalogue of Pre-Historic Antiquities from Adichchanallur and Perumbair.

Sankalia H.D., Deo S.B. and Ansari Z.D., **Chalcolithic, Navdatoli**, (1957-59).

Sankalia, H.D., et. al **Report on the Excavations at Maheswar and Navdatoli**, Poona, Year 1958.

Report on the Excavations at Nasik and Jorwe, Poona, 1955.

Excavations at Ahar (Tambavati), Poona, 1969.

From History to Pre-History at Nevasa, (1954-56), Poona.

Sali S.A., **Daimabad,** (1976-79)

Sastri, T.V., Kasturi Bai, M. and Varaprasada Rao, J. **Veerapuram, A Type Site for Cultural Study in the Krishna Valley**.

Sathyamurthy, T., **The Iron age in Kerala, A Report on Mangadu Excavations**.

Savitha Sharma, **Early Indian Symbols**, New Delhi.

Seshadri, M., **Report on the Jadigenahalli Megalithic Excavations**, 1957.

Report on the Excavations at T.Narasipur.

Sharma, R.K., (Ed) **Indian Archaeology, New Perspectives.**

Sharma, Y.D., "Fresh Light on the Bara Culture from Mahorana", PP.156-176, in **Archaeology and History** (Ed) B.M. Pande and Chattopadyaya.

Singh H.N., **History and Archaeology of Black and Red Ware**.

Sinha, K.K., (Ed) **Excavations at Sravasti.**

Sivaramamurti, C., "Indian Epigraphy and South Indian Scripts", **Bullettin of the Madras Government Museums,** Chennai, 1952.

Subbarayalu, Y., "Vallam Excavations", **Tamil Civilisation Quarterly Journal of the Tamil University** Archaeology Special No.4, December, 1984, PP.9-98.

Subramanian, R., **Salihundam - A Buddhist Site in Andhra Pradesh.**

Subramanyan, T.N., **Pandai Tamil Eluttukkal**, 1931 (Tamil)

Sundara, A., "On the Association of graffiti with Megalithic Pottery" **Archaeological Congress and Seminar**, 1972, (Ed) Udai Vir Singh, PP.169-170.

Thapar, B.K., **"Excavations of a Megalithic Burial, Porkalam"**, 1948, **A.I.** No.8, PP.3-18.

"A Chalcolithic Site of the Southern Deccan," **A.I.** No.13, Maski, 1954

"Prakash, 1955, A Chalcolithic site in the Tapti Valley", **A.I.** Nos. 20 & 21 (1964-1965) PP.5-167.

Udai Vir Singh and Suraj Bhan, — "A note on the Excavations at Balu (District Jind), Haryana" **Indian Archaeology, New Perspectives,** (Ed) By R.K. Sharma, P.126.

Vanaja, R., — **Punch Marked Coins of Tamil Nadu,** Unpublished M.Litt, Thesis, Madras University.

Vats, M.S., — **Excavations at Harappa,** 3 Vols. Calcutta, 1940.

Waddel, L.A., — **The Indo-Sumerian Seals Deciphered,** London, 1925.

Waheed Khan, A., — **A Monograph on Yelleswaram Excavations** (1964)

Wheeler, R.E.M., — Arikamedu - "An Indo-Roman Trading Centre" **A.I.** No.2

"Brahmagiri and Chandravalli", 1947 **A.I.** No.4.

The Indus Valley Civilisation, 1960.

Charsada, 1958

William, G. Boltz, — "Early Chinese Writing", **World Archaeology Vol.17, No.3, 1986.**

William Watson, — **China,** (Thames and Hudson) 1962.

TABLE - I

LIST OF GRAFFITI BEARING SITES CONSULTED

SL. NO.	SITE	DISTRICT	STATE
1.	2.	3.	4.
		NEOLITHIC SITES	
1.	Gufkral ..	Pulwana	Jammu & Kashmir
2.	Nagarjunakonda ..	Guntur	Andhra Pradesh
3.	Kallur ..	..	Karnataka
4.	Piklihal ..	..	Karnataka
		PRE-HARAPPAN SITES	
5.	Amri ..		
6.	Balakot ..		

1.		2.	3.	4.
7.	Ganeshwar	...	Sikar	Rajasthan
8.	Mohorana	...	Sangrur	Punjab
9.	Quetta Valley	...		

HARAPPAN SITES

1.		2.	3.	4.
10.	Harappa	...	Montgomery	Punjab (Pak)
11.	Mohenjodaro	...	Sind	West Pakistan
12.	Chanhudaro	...		
13.	Rojodero	...	Sind	
14.	Alamgirpur	...	Meerut	Uttar Pradesh
15.	Balu	...	Jind	Haryana
16.	Bhagawanpura	...		Haryana

1.		2.	3.	4.
17.	Chandigarh	...		Haryana
18.	Khatoli	...		Haryana
19.	Kalibangan	...	Ganganagar	Rajasthan
20.	Lothal	...		Gujarat
21.	Rojdi	...	Rajkot	Gujarat
22.	Bhokildhar	...		Gujarat
23.	Charanio	...		Gujarat
24.	Chosla	...		Gujarat
25.	Hanumanotimbo	...		Gujarat
26.	Jivanitimbo	...		Gujarat
27.	Vaharvo	...		Gujarat

1.	2.	3.	4.

CHALCOLITHIC SITES

28. Ahar	...	Udaipur	Rajasthan
29. Bhoknakhera	...	Seshore	Madhya Pradesh
30. Eran	...	Sagar	Madhya Pradesh
31. Maheshwar	...	West Nimar	Madhya Pradesh
32. Navdatoli	...	West Nimar	Madhya Pradesh
33. Pipalyalorkha	...	Raisen	Madhya Pradesh
34. Bahal	...	Jalgaon	Maharashtra
35. Tekwada	...	Jalgaon	Maharashtra
36. Chandoli	...	Poona	Maharashtra
37. Inamgaon	...	Poona	Maharashtra

1.	2.	3.	4.
38. Daimabad	...	Ahmadnagar	Maharashtra
39. Jorwe	...	Ahmadnagar	Maharashtra
40. Nevasa	...	Ahmadnagar	Maharashtra
41. Nasik	...	Nasik	Maharashtra
42. Korat	...	Dhullia	Maharashtra
43. Prakash	...	Dhullia	Maharashtra
44. Takalghat	...	Dhullia	Maharashtra
45. Tuljapur	...	Amaravati	Maharashtra
46. Nagal	...	Broach	Gujarat
47. Malvan	...	Surat	Gujarat
48. Rangpur	...	Surendranagar	Gujarat
49. Pandurajar Dhibi	...	Burdwan	West Bengal

1.	2.	3.	4.

IRON-AGE BURIAL SITES

1.	2.	3.	4.
50. Amirthamangalam	Chingleput	Chingleput	Tamil Nadu
51. Kunnathur	...	Chingleput	Tamil Nadu
52. Perumbair	...		Tamil Nadu
53. Sanur	...		Tamil Nadu
54. North Arcot District		North Arcot District	Tamil Nadu
55. Kovalan Pottal	...	Madurai	Tamil Nadu
56. Kambarmedu	...	Tanjavur	Tamil Nadu
57. Adichchanallur	...	Tirunelveli	Tamil Nadu
58. Muttarapalayam	...		Pondicherry
59. Souttoukeni	...		Pondicherry

1.	2.	3.	4.
60. Virampattinam	...		Pondicherry
61. Feroke	...	Kozhikode	Kerala
62. Porkalam	...	Trichur	Kerala
63. Chikkajala	...	Bangalore	Karnataka
64. Gadiganuru	...	Bangalore	Karnataka
65. Jadigenahalli	...	Bangalore	Karnataka
66. Savandurga	...	Bangalore	Karnataka
67. Banahalli	...	Kolar	Karnataka
68. Belgaum	...	Belgaum	Karnataka
69. Ramapuram	...	Kurnool	Andhra Pradesh
70. Yelleswaram	...	Nalgonda	Andhra Pradesh

1.		2.	3.	4.
71.	Kapa	...	Nagpur	Maharashtra
72.	Mahurjhari	...	Nagpur	Maharashtra
73.	Naikund	...	Nagpur	Maharashtra
74.	Theur	...	Poone	Maharashtra
75.	Ranjala	...	Dhullia	Maharashtra

IRON-AGE HABITATION SITES

76.	Kanchipuram	...	Chingelput	Tamil Nadu
77.	Kudikkadu	...	South Arcot	Tamil Nadu
78.	South Arcot	...	South Arcot	Tamil Nadu
79.	Paiyamapalli	...	North Arcot	Tamil Nadu
80.	Adiyamankottai	...	Dharmapuri	Tamil Nadu

1.		2.	3.	4.
81.	Guttur	...	Dharmapuri	Tamil Nadu
82.	Perur	...	Coimbatore	Tamil Nadu
83.	Alagarai	...	Trichy	Tamil Nadu
84.	Karur	...	Trichy	Tamil Nadu
85.	Tirukkampuliyur	...	Trichy	Tamil Nadu
86.	Uraiyur	...	Trichy	Tamil Nadu
87.	Korkai	...	Tirunelveli	Tamil Nadu
88.	Alagankulam	...	Ramnad	Tamil Nadu
89.	Arikamedu	...		Pondicherry
90.	Kallur	...	Belgaum	Karnataka
91.	T. Narasipur	...	Mysore	Karnataka

1.		2.	3.	4.
92.	Salihundam	...	Srikakulam	Andhra Pradesh
93.	Veerapuram	...	Kurnool	Andhra Pradesh
94.	Phulbani	...	Phulbani	Orissa
95.	Katragarh	...	Muzaffarpur	Bihar
96.	Taradih	...	Gaya	Bihar
97.	Sonepur	...	Gaya	Bihar
98.	Chirand	...	Gaya	Bihar
99.	Kausambi	...		Uttar Pradesh
100.	Rajghat	...	Varanasi	Uttar Pradesh
101.	Sravasti	...	Balraich	Uttar Pradesh
102.	Chandrakethugarh	...	24 Parganas	West Bengal
103.	Charsada	...		West Pakistan

1.		2.	3.	4.

BURIAL-CUM HABITATION SITES

104.	Kodumanal	...	Periyar	Tamil Nadu
105.	Vallam	....	Tanjavur	Tamil Nadu
106.	Brahmagiri	...	Chitaldrug	Karnataka
107.	Maski	...	Chitaldrug	Karnataka
108.	Nagarjunakonda	...	Guntur	Andhra Pradesh

MUSEUMS

1.	Govt. Museum,	Chennai	Tamil Nadu
2.	Govt. Museum,	Madurai	Tamil Nadu
3.	Govt. Museum,	Salem	Tamil Nadu
4.	Govt. Museum,	Pondicherry	Pondicherry

1.	2.	3.	4.
5.	Coimbatore Museum,	Coimbatore	Tamil Nadu
6.	Poondi Museum,	Poondi	Tamil Nadu
7.	Erode Museum,	Erode	Tamil Nadu
8.	Dharmapuri Museum,	Dharmapuri	Tamil Nadu
9.	Korkai Museum,	T.velly	Tamil Nadu
10.	Kalaimagal Museum,	Erode	Tamil Nadu
11.	Hyderabad Museum,	Hyderabad	Andhra Pradesh

TABLE II

STATEMENT SHOWING TOTAL NUMBER OF GRAFFITI FROM DIFFERENT CULTURES

SL. NO.	CULTURE	SINGLE GRAFFITI	LIGATURED GRAFFITI	TOTAL
1.	NEOLITHIC ...	5		5
2.	PRE-HARAPPAN ...	68	26	94
3.	HARAPPAN ...	101	118	219
4.	CHALCOLITHIC ...	462	86	548
5.	IRON-AGE HABITATION	1190	396	1586
6.	IRON-AGE BURIAL ...	83	71	154
7.	MUSEUM COLLECTIONS (Mostly from Iron-age Burials)	183	47	230
8.	HUNT, NUMA, YAZDANI & LAL COLLECTIONS :	196	24	220
		2288	768	3056

TABLE III

SITE-WISE & CULTURE WISE COLLECTION OF TOTAL GRAFFITI

SL. NO.	SITE	DISTRICT	STATE	SINGLE GRAFFITI	LIGATURED GRAFFITI	TOTAL
1.	2.	3.	4.	5.	6.	7.
			NEOLITHIC SITES			
1.	Gufkral	Pulwana	Jammu & Kashmir	1	-	1
2.	Nagarjunakonda	Guntur	Andhra Pradesh	1	-	1
3.	Kallur		Karnataka	2	-	2
4.	Piklihal		Karnataka	1	-	1
			PRE-HARAPPAN SITES			
5.	Amri			7	15	22
6.	Balakot			8	2	10
7.	Ganeshwar	Sikar	Rajasthan	11	4	15
8.	Mohorana	Sangrur	Punjab	4	-	4
9.	Quetta Valley			38	5	43
1.	2.	3.	4.	5.	6.	7.
			HARAPPAN SITES			
10.	Harappa	Montgomery	Punjab (Pak)	28	40	68
11.	Mohenjodaro	Sind	West Pakistan	2	17	19
12.	Chanhudaro			1	3	4
13.	Rojodero	Sind		1	-	1
14.	Alamgirpur	Meerut	Uttar Pradesh	-	3	3
15.	Balu	Jind	Haryana	4	-	4
16.	Bhagwanpura		Haryana	-	-	-
17.	Chandigarh		Haryana	1	3	4
18.	Khatoli		Haryana	1	-	1
19.	Kalibangan	Ganganagar	Rajasthan	4	16	20
20.	Lothal		Gujarat	28	22	50
21.	Rojdi	Rajkot	Gujarat	21	5	26
22.	Bhokildhar		Gujarat	2	-	2
23.	Charanio		Gujarat	1	-	1

1.	2.	3.	4.	5.	6.	7.
24.	Chosla		Gujarat	2	1	3
25.	Hanumanotimbo		Gujarat	1	-	1
26.	Jvanionotimbo		Gujarat	1	-	1
27.	Vaharvo		Gujarat	3	1	4
			CHALCOLITHIC SITES			
28.	Ahar	Udaipur	Rajasthan	8	-	8
29.	Bhoknakhera	Seshore	Madhya Pradesh	4	-	4
30.	Eran	Sagar	Madhya Pradesh	3	1	4
31.	Maheshwar	West Nimar	Madhya Pradesh	7	6	13
32.	Navdatoli	West Nimhar	Madhya Pradesh	38	2	40
33.	Pipalyalorkha	Raussen	Madhya Pradesh	-	-	-
34.	Bahal	Jalgaon	Maharashtra	1	-	1
35.	Tekwada	Jalgaon	Maharashtra	1	-	1
36.	Chandoli	Poona	Maharashtra	3	1	4
37.	Inamgaon	Poona	Maharashtra	1	-	1

1.	2.	3.	4.	5.	6.	7.
38.	Daimabad	Ahmadnagar	Maharashtra	143	34	177
39.	Jorwe	Ahmadnagar	Maharashtra	3	-	3
40.	Nevasa	Ahmadnagar	Maharashtra	2	-	2
41.	Nasik	Nasik	Maharashtra	11	8	19
42.	Korat	Dhullia	Maharashtra	1	-	1
43.	Prakash	Dhullia	Maharashtra	6	5	11
44.	Takalghat	Dhullia	Maharashtra	13	3	16
45.	Tuljapur	Amaravati	Maharashtra	-	-	-
46.	Nagal	Broah	Gujarat	11	1	12
47.	Malvan	Surat	Gujarat	-	-	-
48.	Rangpur	Surendranagar	Gujarat	206	16	222
49.	Pandurajar Dhibi	Burdwan	West Bengal	-	-	-
			BURIAL SITES			
50.	Amirthimangalam	Chingelput	Tamil Nadu	4	-	4
51.	Kunnathur	Chingelput	Tamil Nadu	1	1	2

1.	2.	3.	4.	5.	6.	7.
52.	Perumbair		Tamil Nadu	1	1	2
53.	Sanur		Tamil Nadu	11	28	39
54.	North Arcot District	North Arcot District	Tamil Nadu	3	1	4
55.	Kovalanpottal	Madurai	Tamil Nadu	3	2	5
56.	Kambarmedu	Tanjavur	Tamil Nadu	3	2	5
57.	Adichchanallur	Tirunelveli	Tamil Nadu	2	-	2
58.	Muttarapalayam		Pondicherry	-	-	-
59.	Souttoukeni		Pondicherry	-	-	-
60.	Virampattinam		Pondicherry	2	-	2
61.	Feroke	Kozhikode	Kerala	2	-	2
62.	Porkalam	Trichur	Kerala	2	-	2
63.	Chikkajala	Bangalore	Karnataka	1	-	1
64.	Gadiganuru	Bangalore	Karnataka	1	-	1
65.	Jadiganahalli	Bangalore	Karnataka	-	3	3
66.	Savandurga	Bangalore	Karnataka	-	10	10

1.	2.	3.	4.	5.	6.	7.
67.	Anahalli	Kolar	Karnataka	-	-	-
68.	Belgaum District	Belgaum	Karnataka	17	3	20
69.	Ramapuram	Kurnool	Andhra Pradesh	14	2	16
70.	Yelleswaram	Nalgonda	Andhra Pradesh	-	2	2
71.	Kapa	Nagpur	Maharashtra	1	-	1
72.	Mahurjahari	Nagpur	Maharashtra	-	-	-
73.	Naikund	Nagpur	Maharashtra	-	-	-
74.	Theur	Poone	Maharashtra	13	2	15
75.	Ranjala	Dhullia	Maharashtra	2	1	3
		IRON-AGE HABITATION SITES				
76.	Kanchipuram	Chingleput	Tamil Nadu	13	2	15
77.	Kudikkadu	South Arcot	Tamil Nadu	3	-	3
78.	South Arcot	South Arcot	Tamil Nadu	-	-	-
79.	Paiyampalli	North Arcot	Tamil Nadu	-	-	-
80.	Adiyamankottai	Dharmapuri	Tamil Nadu	-	1	1

1.	2.	3.	4.	5.	6.	7.
81.	Guttur	Dharmapuri	Tamil Nadu	3	-	3
82.	Perur	Coimbatore	Tamil Nadu	37	13	50
83.	Alagarai	Trichy	Tamil Nadu	87	47	134
84.	Karur	Trichy	Tamil Nadu	74	36	110
85.	Tirukkampuliyur	Trichy	Tamil Nadu	164	70	234
86.	Uraiyur	Trichy	Tamil Nadu	82	31	113
87.	Korkai	Tirunelveli	Tamil Nadu	7	17	24
88.	Alagankulam	Ramnad	Tamil Nadu	26	-	26
89.	Arikamedu		Pondicherry	89	25	105
90.	Kallur	Belgaum	Karnataka	4	-	4
91.	T.Narasipur	Mysore	Karnataka	148	38	186
92.	Salihundam	Srikakulam	Andhra Pradesh	5	2	7
93.	Veerapuram	Kurnool	Andhra Pradesh	5	2	7
94.	Phulbani	Phulbani	Orissa	-	-	-
95.	Katragarh	Muzaffarpur	Bihar	-	-	-

1.	2.	3.	4.	5.	6.	7.
96.	Taradih	Gaya	Bihar	-	-	-
97.	Sonepur	Gaya	Bihar	7	-	7
98.	Chirand	Gaya	Bihar	-	-	-
99.	Kausambi	Uttara Pradesh	Uttara Pradesh	45	-	45
100.	Rajghat	Varanasi	Uttara Pradesh	4	-	4
101.	Sravasti	Balraich	Uttara Pradesh	2	-	2
102.	Chandra Kethughar	24 Parganas	West Bengal	-	3	3
103.	Charsada		West Pakistan	1	3	4
		BURIAL-CUM HABITATION SITES				
104.	Kodumanal	Periyar	Tamil Nadu	275	70	345
105.	Vallam	Tanjavur	Tamil Nadu	89	19	108
106.	Brahmairi	Chitaldrug	Karnataka	10	10	20
107.	Maski	Chitaldrug	Karnataka	12	3	15
108.	Nagarjunakonda	Guntur	Andhra Pradesh	3	3	6

1.	2.	3.	4.	5.	6.	7.
			MUSEUMS			
1.	GOVT. MUSEUM CHENNAI	CHENNAI	TAMIL NADU	20	4	24
2.	GOVT. MUSEUM MADURAI	MADURAI	TAMIL NADU	4	4	8
3.	GOVT. MUSEUM SALEM	SALEM	TAMIL NADU	1	-	1
4.	GOVT. MUSEUM	PONDICHERRY	PONDICHERRY	21	3	24
5.	COIMBATORE MUSEUM COIMBATORE	COIMBATORE	TAMILNADU	3	1	4
6.	POONDI MUSEUM POONDI	POONDI	TAMIL NADU	12	3	15
7.	ERODE MUSEUM ERODE	ERODE	TAMIL NADU	2	-	2
8.	DHARMAPURI MUSEUM	DHARMAPURI	TAMIL NADU	2	-	2
9.	KORKAI MUSEUM	KORKAI	TAMIL NADU	-	8	8

1.	2.	3.	4.	5.	6.	7.
10.	KALAIMAGAL MUSEUM	ERODE	TAMIL NADU	67	5	72
11.	HYDERABAD MUSEUM	HYDERABAD	ANDHRA PRADESH	51	7	58
			PREVIOUS WORKS			
1.	HUNT	...		11	4	15
2.	NUMA	...		3	4	7
3.	YAZDANI	..		124	7	131
4.	LAL	...		58	3	61

TABLE - IV

PERIODWISE DISTRIBUTION OF PROMINENT GRAFFITI

1.	SYMBOLS COMMON TO ALL PERIODS	...	19
2.	SYMBOLS COMMON TO FOUR PERIODS	...	31
3.	SYMBOLS COMMON TO THREE PERIODS	...	41
4.	SYMBOLS COMMON TO PRE-HARAPPAN & HARAPPAN	...	1
5.	SYMBOLS COMMON TO PRE-HARAPPAN & IRON-AGE	...	2
6.	SYMBOLS COMMON TO PRE-HARAPPAN & CHALCOLITHIC	...	4
7.	SYMBOLS COMMON TO HARAPPAN & CHALCOLITHIC	...	4
8.	SYMBOLS COMMON TO HARAPPAN & IRON-AGE	...	10
9.	SYMBOLS COMMON TO CHALCOLITHIC & IRON-AGE	...	21
10.	SYMBOLS COMMON TO IRON-AGE HABITATION & IRON-AGE BURIALS	...	29
11.	EXCLUSIVELY PRE-HARAPPAN SYMBOLS	...	16
12.	EXCLUSIVELY HARAPPAN SYMBOLS	...	22
13.	EXCLUSIVELY CHALCOLITHIC	...	83
14.	EXCLUSIVELY IRON-AGE HABITATION	...	171
15.	EXCLUSIVELY IRON-AGE BURIAL	...	59
	TOTAL	...	513

KEY TO THE PERIOD-WISE DISTRIBUTION OF PROMINENT GRAFFITI
DISTRIBUTION KEY

COMBINATION	SYMBOL NUMBERS							TOTAL
Symbols common to all periods :	1,	2,	3,	52,	69,	70,	086,	19
	096,	108,	201,	210,	211,	272,	275,	
	360,	379,	400,	417,	461			
Common to 4 periods only :								
Common without PHR.	4,	6,	8,	43,	97,	134,	143,	
	157,	170,	176,	228,	229,	256,	276,	
	335,	347,	348,	359,	373,	376,	443,	
	445,	475,						23
Common Without HR.	11,	16,	77,	255,	334,	372,		6
Common Without Chalcolithic.	222.							1
Common Without Iron-age Burial:	401.							1

Common to three periods only.								
IB, IH, CH.	7, 164, 459,	46, 165, 493,	74, 174, 156,	79, 337, 163.	107, 345,	131, 349,	152, 444,	18
IB, PH, IH.	9,	10,	15.					3
IH, CH, HR.	20,	89,	135,	172,	374,	477		6
IB, CH, HR.	39,	94,	177.	374.				4
IB, HR, PH.	101,	106						2
IB, IH, HR.	136,	146,	162,	247,	274,	410		6
IH, HR, PH.	190,	198.						2
Common to PH and HR.	453.							1
Common to PH and IH.	218,	396.						2
Common to PH and CH	85,	95.	23	25				4

KEY TO THE PERIOD-WISE DISTRIBUTION OF PROMINENT GRAFFITI DISTRIBUTION KEY (Contd.)

COMBINATION	SYMBOL NUMBERS							TOTAL
Common to HR and CH.	44,	73,	84,	476.				4
Common to HR. & IH.	19, 438,	21, 441,	34, 478.	155,	212,	281,	416,	10
Common to HR & IB	415.							1
Common to CH & IH	110, 285, 446,	118, 290, 468,	159, 346, 311	243, 350,	251, 351,	258, 353,	283, 370,	17
Common to CH & IB	206,	300,	339,	509.				4
Common to IH & IB	14, 160, 249, 263, 464.	17, 168, 250, 270,	18, 192, 252, 371,	23, 200, 257, 406,	26, 203, 259, 442,	47, 205, 260, 448,	128, 240, 262, 463,	29

Exclusively Pre-Harappan	30,	31,	58,	60,	66,	105,	173,	
	207,	226,	287,	309,	427,	428,	430,	
	456.							16
Exclusively Harappan	27,	67,	98,	99,	103,	117,	123,	
	169,	209,	237,	266,	312 ,	323,	328,	
	336,	341,	356,	375,	380,	389,	473,	
	482.							22
Exclusively Chalcolithic	45,	53,	63,	71,	80,	82,	88,	
	113,	119,	132,	133,	150,	182,	183,	
	184,	185,	186,	187,	188,	204,	208,	
	216,	223,	242,	254,	267,	268,	284,	
	286,	292,	293,	294,	295,	296,	298,	
	299,	303,	305,	306,	307,	310,	314,	
	315,	316,	317,	319,	320,	325,	326,	
	327,	329,	330,	331,	338,	340,	344,	
	354,	365,	384,	394,	395,	411,	412,	
	413,	414,	420,	422,	426,	431,	432,	
	433,	435,	436,	452,	455,	460,	465,	
	467,	483,	487,	488,	496,	502.		83

PH: Pre-Harappan; HR : Harappan; CH : Chalcolithic;
IH: Iron age Habitation; IB: Iron age Burials.

KEY TO THE PERIOD-WISE DISTRIBUTION OF PROMINENT GRAFFITI DISTRIBUTION KEY (Contd.)

COMBINATION	SYMBOL NUMBERS							TOTAL
Exclusively Iron-age Habitation	5,	12,	22,	28,	29,	33,	35,	
	36,	37,	41,	42,	49,	50,	51,	
	54,	56,	61,	62,	64,	65,	68,	
	72,	76,	78,	81,	83,	90,	91,	
	93,	102,	109,	111,	112,	114,	115,	
	116,	120,	121,	122,	124.	125,	126,	
	127,	137,	138,	144,	145,	148,	149,	
	151,	153,	154,	156,	161,	171,	175,	
	178,	180,	181,	189,	193,	194,	195,	
	196,	197,	199,	202,	213,	214,	215,	
	219,	220,	221,	234,	235,	236,	239,	
	244,	245,	248,	253,	261,	265,	269,	
	277,	278,	279,	282,	289,	301,	308,	
	313,	318,	321,	322,	330,	332,	333,	
	342,	343,	355,	357,	358,	361,	362,	
	363,	364,	366,	367,	369,	378,	381,	
	382,	383,	385,	386,	387,	388,	390,	

COMBINATION	SYMBOL NUMBERS							TOTAL
Exclusively Iron-age Habitation (Contd...)	391,	392,	393,	398,	399,	403,	404,	
	405,	407,	408,	409,	418,	419,	421,	
	424,	425,	434,	437,	439,	440,	450,	
	454,	457,	462,	466,	469,	470,	474,	
	479,	480,	481,	484,	485,	486,	489,	
	490,	491,	492,	495,	497,	499,	501,	
	503,	504,	508,	509,	510,	511,	512,	
	513,	505.						170
Exclusively Iron age Burials :	13,	24,	32,	38,	40,	48,	55,	
	57,	75,	87,	92,	100,	104,	129,	
	130,	140,	139,	141,	142,	147,	166,	
	167,	179,	191,	217,	224,	225,	230,	
	231,	232,	233,	238,	241,	246,	264,	
	271,	273,	280,	288,	291,	297,	302,	
	304,	368,	377,	397,	402,	423,	429,	
	447,	451,	458,	471,	472,	494,	498,	
	500,	506,	507.					59

TABLE - V

FREQUENCY OF PROMINENT GRAFFITI IN DIFFERENT CULTURES.

SYMBOL No.	IRON-AGE BURIALS	IRON-AGE HABITATION	CHALCOLITHIC	HARAPPAN	PRE-HARAPPAN
1.	2.	3.	4.	5.	6.
1.	12	44	6	9	1
2.	11	29	7	23	4
3.	7	20	10	18	2
4.	6	12	6	8	-
5.	1	1	-	-	-
6.	2	7	6	4	-
7.	2	2	1	-	-
8.	4	1	1	1	-

1.	2.	3.	4.	5.	6.
9.	4	12	-	-	-
10.	1	5	-	-	-
11.	1	2	2	-	-
12.	-	1	-	-	-
13.	1	-	-	-	-
14.	7	10	-	-	-
15.	3	4	-	-	2
16.	2	6	-	-	2
17.	29	5	-	-	-
18.	2	-	-	-	-
19.	-	1	-	2	-
20.	-	1	1	1	-

1.	2.	3.	4.	5.	6.
21.	-	1	-	4	-
22.	-	1	-	-	-
23.	-	2	1	-	-
24.	1	-	-	-	-
25.	-	-	1	-	-
26.	1	3	-	-	-
27.	-	-	-	1	-
28.	-	2	-	-	-
29.	-	3	-	-	-
30.	-	-	-	-	1
31.	-	-	-	-	1
32.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
33.	-	1	-	-	-
34.	-	2	-	1	-
35.	-	1	-	-	-
36.	-	1	-	-	-
37.	-	1	-	-	-
38.	1	-	-	-	-
39.	1	-	1	-	-
40.	1	-	-	-	-
41.	-	1	-	-	-
42.	-	1	-	-	-
43.	4	10	3	1	-
44.	-	-	1	1	-
45.	-	-	1	-	-

1.	2.	3.	4.	5.	6.
46.	1	2	4	-	-
47.	1	5	-	-	-
48.	1	-	-	-	-
49.	-	5	-	-	-
50.	-	2	-	-	-
51.	-	1	-	-	-
52.	17	77	4	4	6
53.	-	-	1	-	-
54.	-	1	-	-	-
55.	1	-	-	-	-
56.	-	1	-	-	-
57.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
58.	-	-	-	-	1
59.	-	-	-	-	1
60.	-	-	-	-	1
61.	-	1	-	-	-
62.	-	1	-	-	-
63.	-	-	1	-	-
64.	-	1	-	-	-
65.	-	1	-	-	-
66.	-	-	-	-	2
67.	-	-	-	3	-
68.	-	1	-	-	-
69.	1	23	1	1	5

1.	2.	3.	4.	5.	6.
70.	5	23	3	1	1
71.	-	-	1	-	-
72.	-	1	-	-	-
73.	-	-	3	1	-
74.	1	4	5	-	-
75.	1	-	-	-	-
76.	-	1	-	-	-
77.	1	2	-	-	1
78.	-	2	-	-	-
79.	1	8	2	-	-
80.	1	-	-	-	-
81.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
82.	-	-	3	-	-
83.	-	1	-	-	-
84.	-	-	1	1	-
85.	-	-	2	-	1
86.	5	8	3	2	1
87.	4	-	-	-	-
88.	-	-	1	-	-
89.	-	1	-	4	-
90.	-	1	-	-	-
91.	-	1	-	-	-
92.	1	-	-	-	-
93.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
94.	1	1	1	1	-
95.	-	-	3	-	1
96.	1	1	5	2	2
97.	1	3	5	3	-
98.	-	-	-	1	-
99.	-	-	-	1	-
100.	1	-	-	-	-
101.	1	1	-	3	1
102.	-	1	-	-	-
103.	-	-	-	1	-
104.	1	-	-	-	-
105.	-	-	-	-	1

1.	2.	3.	4.	5.	6.
106.	1	-	-	2	1
107.	2	1	3	-	-
108.	5	9	14	2	1
109.	-	1	-	-	-
110.	-	3	5	-	-
111.	-	1	-	-	-
112.	-	1	-	-	-
113.	-	-	1	-	-
114.	-	1	-	-	-
115.	-	1	-	-	-
116.	-	1	-	-	-
117.	-	-	-	1	-

1.	2.	3.	4.	5.	6.
118.	-	4	1	-	-
119.	-	-	3	-	-
120.	-	1	-	-	-
121.	-	1	-	-	-
122.	-	1	-	-	-
123.	-	-	-	1	-
124.	-	1	-	-	-
125.	-	1	-	-	-
126.	-	1	-	-	-
127.	-	1	-	-	-
128.	1	1	-	-	-
129.	2	-	-	-	-

1.	2.	3.	4.	5.	6.
130.	1	-	-	-	-
131.	1	1	2	-	-
132.	-	-	1	-	-
133.	-	-	1	-	-
134.	1	5	1	1	-
135.	-	4	2	1	-
136.	1	6	-	-	1
137.	-	1	-	-	-
138.	-	1	-	-	-
139.	1	-	-	-	-
140.	3	-	-	-	-
141.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
142.	1	-	-	-	-
143.	8	6	1	1	-
144.	-	1	-	-	-
145.	-	1	-	-	-
146.	1	1	-	3	-
147.	1	-	-	-	-
148.	-	1	-	-	-
149.	-	1	-	-	-
150.	-	-	1	-	-
151.	-	1	-	-	-
152.	3	6	3	-	-
153.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
154.	-	1	-	-	-
155.	-	3	-	1	-
156.	-	4	-	-	-
157.	1	1	2	3	-
158.	2	3	1	-	-
159.	-	1	1	-	-
160.	1	6	-	-	-
161.	-	6	-	-	-
162.	2	5	-	4	-
163.	1	1	1	-	-
164.	-	-	3	1	-
165.	1	4	1	-	-

1.	2.	3.	4.	5.	6.
166.	2	-	-	-	-
167.	1	-	-	-	-
168.	1	1	-	-	-
169.	-	-	-	2	-
170.	4	5	3	6	-
171.	-	1	-	-	-
172.	-	1	1	-	-
173.	-	-	-	-	1
174.	1	2	1	-	-
175.	-	1	-	-	-
176.	1	16	1	1	-
177.	-	3	1	1	-

1.	2.	3.	4.	5.	6.
178.	-	1	-	-	-
179.	1	-	-	-	-
180.	-	1	-	-	-
181.	-	1	-	-	-
182.	-	1	1	-	-
183.	-	-	1	-	-
184.	-	-	1	-	-
185.	-	-	1	-	-
186.	-	-	1	-	-
187.	-	-	1	-	-
188.	-	1	-	-	-
189.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
190.	-	1	-	-	1
191.	1	-	-	-	-
192.	1	1	-	-	-
193.	-	1	-	-	-
194.	-	3	-	-	-
195.	-	1	-	-	-
196.	-	1	-	-	-
197.	-	-	1	-	-
198.	-	1	-	1	1
199.	-	1	-	-	-
200.	1	8	-	-	-
201.	4	19	4	6	4

1.	2.	3.	4.	5.	6.
202.		4	-	-	-
203.	1	1	-	-	-
204.		-	2	-	-
205.	1	2	-	-	-
206.	1	-	3	-	-
207.	-	-	-	-	2
208.	-	-	1	-	-
209	-	-	-	6	-
210.	15	74	5	7	7
211.	1	24	6	-	3
212.	-	3	-	1	-
213.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
214.	-	1	-	-	-
215.	-	5	-	-	-
216.	-	-	3	-	-
217.	-	1	-	-	1
218.	-	1	-	-	-
219.	-	1	-	-	-
220.	-	1	-	-	-
221.	-	1	-	-	-
222.	2	8	-	4	5
223.	-	-	1	-	-
224.	1	-	-	-	-
225.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
226.	-	-	-	-	2
227.	1	-	-	-	-
228.	30	86	16	1	-
229.	5	20	1	2	-
230.	1	-	-	-	-
231.	1	-	-	-	-
232.	1	-	-	-	-
233.	1	-	-	-	-
234.	-	1	-	-	-
235.	-	4	-	-	-
236.	-	1	-	-	-
237.	-	-	-	1	-

1.	2.	3.	4.	5.	6.
238.	1	-	-	-	-
239.	-	2	-	-	-
240.	2	-	-	-	-
241.	2	-	-	-	-
242.	-	-	1	-	-
243.	-	1	1	-	-
244.	-	1	-	-	-
245.	-	2	-	-	-
246.	1	-	-	-	-
247.	1	1	-	1	-
248.	-	1	-	-	-
249.	-	3	-	-	-

1.	2.	3.	4.	5.	6.
250.	2	17	-	-	-
251.	-	5	2	-	-
252.	13	22	-	-	-
253.	-	1	-	-	-
254.	-	-	1	-	-
255.	8	12	5	-	2
256.	6	4	3	1	-
257.	1	1	-	-	-
258.	-	1	2	-	-
259.	1	2	-	-	-
260.	4	7	-	-	-
261.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
262.	4	5	-	-	-
263.	3	3	-	-	-
264.	3	-	-	-	-
265.	-	1	-	-	-
266.	-	-	-	1	-
267.	-	-	1	-	-
268.	-	-	2	-	-
269.	-	1	-	-	-
270.	1	2	-	-	-
271.	1	-	-	-	-
272.	7	6	1	1	1
273.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
274.	2	4	-	1	-
275.	13	20	3	5	1
276.	1	6	2	1	-
277.	-	2	-	-	-
278.	-	1	-	-	-
279.	-	3	-	-	-
280.	1	-	-	-	-
281.	-	2	-	1	-
282.	-	1	-	-	-
283.	-	1	2	-	-
284.	-	-	1	-	-
285.	-	1	1	-	-

1.	2.	3.	4.	5.	6.
286.	-	-	1	-	-
287.	-	-	-	-	1
288.	1	-	-	-	-
289.	-	1	-	-	-
290.	-	1	1	-	-
291.	1	-	-	-	-
292.	-	-	1	-	-
293.	-	-	1	-	-
294.	-	-	1	-	-
295.	-	-	1	-	-
296.	-	-	1	-	-
297.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
298.	-	-	1	-	-
299.	-	-	1	-	-
300.	1	-	2	-	-
301.	-	1	-	-	-
302.	1	-	-	-	-
303.	-	-	1	1	-
304.	1	-	-	-	-
305.	-	-	1	-	-
306.	-	-	1	-	-
307.	-	-	1	-	-
308.	-	1	-	-	-
309.			-	-	1

1.	2.	3.	4.	5.	6.
310.	-	-	1	-	-
311.	-	1	1	-	-
312.	-	-	-	1	-
313.	-	1	-	-	-
314.	-	-	1	-	-
315.	-	-	1	-	-
316.	-	-	1	-	-
317.	-	-	1	-	-
318.	-	1	-	-	-
319.	-	-	1	-	-
320.	-	-	1	-	-
321.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
322.	1	-	-	-	-
323.	-	-	-	1	-
324.	-	-	1	-	-
325.	-	-	1	-	-
326.	-	-	1	-	-
327.	-	-	1	-	-
328.	-	-	-	1	-
329.	-	-	1	-	-
330.	-	-	1	-	-
331.	-	-	1	-	-
332.	-	1	-	-	-
333.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
334.	3	2	4	-	1
335.	1	4	1	2	-
336.	-	-	-	1	-
337.	7	3	5	-	-
338.	-	-	1	-	-
339.	1	-	2	-	-
340.	-	-	1	-	-
341.	-	-	-	1	-
342.	-	1	-	-	-
343.	-	1	-	-	-
344.	-	-	1	-	-
345.	2	3	1	-	-

1.	2.	3.	4.	5.	6.
346.	-	-	5	-	-
347.	1	5	1	1	-
348.	1	6	1	1	-
349.	2	3	3	-	-
350.	-	2	3	-	-
351.	-	2	1	-	-
352.	-	1	-	-	-
353.	-	1	1	1	-
354.	-	-	2	-	-
355.	-	1	-	-	-
356.	-	-	-	1	-
357.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
358.	-	1	-	-	-
359.	1	6	11	4	-
360.	2	35	3	1	1
361.	-	4	-	-	-
362.	-	1	-	-	-
363.	-	1	-	-	-
364.	-	1	-	-	-
365.	-	-	1	-	-
366.	-	1	-	-	-
367.	-	1	-	-	-
368.	1	-	-	-	-
369.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
370.	-	6	2	-	-
371.	3	5	-	-	-
372.	4	1	1	-	2
373.	3	3	2	1	-
374.	-	4	2	1	-
375.	-	-	-	1	-
376.	4	6	9	3	-
377.	-	1	-	-	-
378.	-	1	-	-	-
379.	2	11	1	11	1
380.	-	-	-	1	-
381.	-	3	-	-	-

1.	2.	3.	4.	5.	6.
382.	-	1	-	-	-
383.	-	2	-	-	-
384.	-	-	1	-	-
385.	-	1	-	-	-
386.	-	1	-	-	-
387.	-	2	-	-	-
388.	-	1	-	-	-
389.	-	-	-	1	-
390.	-	1	-	-	-
391.	-	5	-	-	-
392.	-	1	-	-	-
393.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
394.	-	-	1	-	-
395.	-	-	1	-	-
396.	1	3	-	-	1
397.	1	-	-	-	-
398.	-	1	-	-	-
399.	-	1	-	-	-
400.	6	7	2	2	6
401.	-	5	3	1	1
402.	1	-	-	-	-
403.	-	1	-	-	-
404.	-	6	-	-	-
405.	-	2	-	-	-

1.	2.	3.	4.	5.	6.
406.	2	4	-	1	-
407.	-	1	-	-	-
408.	-	1	-	-	-
409.	-	1	-	-	-
410.	1	3	-	-	1
411.	-	-	1	1	-
412.	-	-	1	-	-
413.	-	-	1	1	-
414.	-	-	1	-	-
415.	1	-	-	2	-
416.	2	1	2	5	1
417.	-	1	-	1	-

1.	2.	3.	4.	5.	6.
418.	-	1	-	-	-
419.	-	2	-	-	-
420.	-	-	1	-	-
421.	-	1	-	-	-
422.	-	-	1	-	-
423.	1	-	-	-	-
424.	-	1	-	-	-
425.	-	1	-	-	-
426.	-	-	1	-	-
427.	-	-	-	-	1
428.	-	-	-	-	3
429.	1	-	-	-	-

1.	2.	3.	4.	5.	6.
430.	-	-	-	-	1
431.	-	-	1	-	-
432.	-	-	1	-	-
433.	-	-	1	-	-
434.	-	1	-	-	-
435.	-	-	1	-	-
436.	-	-	1	-	-
437.	-	6	-	-	-
438.	-	5	-	3	-
439.	-	1	-	-	-
440.	-	1	-	-	-
441.	-	2	-	1	-

1.	2.	3.	4.	5.	6.
442.	1	1	-	-	-
443.	3	6	1	1	-
444.	1	6	3	-	-
445.	2	1	1	2	-
446.	-	3	1	-	-
447	1	-	-	-	-
448.	1	1	-	-	-
449.	-	-	1	1	-
450.	-	1	-	-	-
451.	1	-	-	-	-
452.	-	-	1	-	-
453.	-	-	-	1	1

1.	2.	3.	4.	5.	6.
454.	-	3	-	-	-
455.	-	-	1	-	-
456.	-	-	-	-	2
457.	-	2	-	-	-
458.	1	-	-	-	-
459.	3	6	1	-	-
460.	-	-	1	-	-
461.	13	9	3	-	-
462.	-	1	-	-	-
463.	3	6	-	-	-
464.	4	11	-	-	-
465.	-	-	1	-	-

1.	2.	3.	4.	5.	6.
466.	-	1	-	-	-
467.	-	-	1	-	-
468.	-	1	3	-	-
469.	-	1	-	-	-
470.	-	1	-	-	-
471.	1	-	-	-	-
472.	1	-	-	-	-
473.	-	-	-	1	-
474.	-	1	-	-	-
475.	1	3	6	2	-
476.	-	-	2	1	-
477.	-	1	1	2	-

1.	2.	3.	4.	5.	6.
478.	-	2	-	1	-
479.	-	1	-	-	-
480.	-	1	-	-	-
481.	-	1	-	-	-
482.	-	-	-	1	-
483.	-	-	1	-	-
484.	-	1	-	-	-
485.	-	1	-	-	-
486.	1	-	-	-	-
487.	-	-	1	-	-
488.	-	-	1	-	-
489.	-	2	-	-	-

1.	2.	3.	4.	5.	6.	1.	2.	3.	4.	5.	6.
490.	-	1	-	-	-	502.	-	-	1	-	-
491.	1	-	-	-	-	503.	-	1	-	-	-
492.	-	1	-	-	-	504.	-	1	-	-	-
493.	1	1	1	-	-	505.	-	1	-	-	-
494.	1	-	-	-	-	506.	1	-	-	-	-
495.	-	1	-	-	-	507.	1	-	-	-	-
496.	-	-	1	-	-	508.	-	1	-	-	-
497.	-	1	-	-	-	509.	-	1	-	-	-
498.	1	-	-	-	-	510.	-	2	-	-	-
499.	-	1	-	-	-	511.	-	1	-	-	-
500.	1	-	-	-	-	512.	-	2	-	-	-
501.	-	1	-	-	-	513.	-	1	-	-	-

TABLE VI

CULTUREWISE DISTRIBUTION OF HIGH FREQUENCY GRAFFITI.

IRON-AGE BURIALS

Order of High Frequency**		Symbol No.	High Frequency
1.	...	228	30
2.	...	17	29
3.	...	52	17
4.	...	210	15
5.	...	252 }	13
		275 }	
6.	...	1	12
7.	...	2	11

IRON-AGE HABITATION

Order of High Frequency**		Symbol No.	High Frequency
1.	...	228	86
2.	...	52	77
3.	...	210	74
4.	...	1	44
5.	...	2	29
6.	...	211	24
7.	...	69, 70	23
8.	...	252	22
9.	...	3, 229, 275	20
10.	...	201	19

** The Graffiti with frequency of 10 and more are alone chosen.

CULTUREWISE DISTRIBUTION OF HIGH FREQUENCY GRAFFITI.

CHALCOLITHIC

Order of High Frequency**		Symbol No.	High Frequency
1.	...	86	16
2.	...	108	14
3.	...	359	11
4.	...	3	10

** The Graffiti with frequency of 10 and more are alone chosen.

DISTRIBUTION OF HIGH FREQUENCY GRAFFITI COMMON TO ALL CULTURES

Symbol No.		Iron-age Burials		Iron-age Habitation	Chalcolithic
1.	...	12	...	44	-
2.	...	11	...	29	-
52.	...	17	...	77	-
210.	...	15	...	74	-
228.	...	30	...	86	-
252.	...	13	...	22	-
275	...	13	...	20	-

TABLE VII

SITE-WISE AND PERIOD-WISE DISTRIBUTION OF THE LIGATURED GRAFFITI WITH THEIR LENGTH

SITE-WISE DISTRIBUTION OF THE LIGATURED GRAFFITI WITH THEIR LENGTH

PRE-HARAPPAN

		TWO SIGNS.	THREE SIGNS.	FOUR SIGNS.	FIVE SIGNS.	SIX SIGNS.	SEVEN SIGNS.	OVER-LAPPING	TOTAL
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.	AMRI	5	3	-	-	-	-	7	15
2.	QUETTA	1	2	-	-	-	-	2	5
3.	GANESHWAR	1	2	-	-	-	-	1	4
		7	7	-	-	-	-	10	24

HARAPPAN

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.	HARAPPA	23	9	5	1	1	-	1	40
2.	MOHENJODARO	7	6	2	2	-	-	-	17
3.	KALIBANGAN	9	4	3	-	-	-	-	16
4.	LOTHAL	12	7	1	-	-	-	2	22
5.	CHANHUDARO	2	1	-	-	-	-	-	3
6.	ALAMGIRPUR	3	-	-	-	-	-	-	3
7.	ROJDI	3	-	1	-	-	-	1	5
8.	CHOSLA	1	-	-	-	-	-	-	1
9.	VAHARVO	1	-	-	-	-	-	-	1
10.	CHANDIGARH	-	1	-	1	-	-	1	3
11.	OTHER SITES	3	2	1	-	-	1	-	7
		64	30	13	4	1	1	5	118

CHALCOLITHIC

		TWO SIGNS.	THREE SIGNS.	FOUR SIGNS.	FIVE SIGNS.	SIX SIGNS.	SEVEN SIGNS.	OVER-LAPPING	TOTAL
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.	CHANDRA KETHUGARH	2	-	-	-	-	-	1	3
2.	RANJALA	1	-	-	-	-	-	-	1
3.	NAGAL	1	-	-	-	-	-	-	1
4.	THEUR	2	-	-	-	-	-	-	2
5.	NASIK	2	3	-	-	-	-	3	8
6.	PRAKASH	4	-	-	-	-	-	1	5
7.	TAKALGHAT	3	-	-	-	-	-	-	3
8.	RANGPUR	8	1	-	-	-	-	7	16
9.	MAHESHWAR	2	2	-	-	-	-	2	6
10.	NAVDATOLI	1	-	-	-	-	-	-	1
11.	CHANDOLI	1	-	-	-	-	-	-	1
12.	DAIMABAD	20	9	-	1	-	-	4	34
13.	TEKWADA	3	1	-	-	-	-	-	4
14.	ERAN	1	-	-	-	-	-	-	1
		51	16	-	1	-	-	18	86

IRON AGE BURIALS

		TWO SIGNS.	THREE SIGNS.	FOUR SIGNS.	FIVE SIGNS.	SIX SIGNS.	SEVEN SIGNS.	OVER-LAPPING	TOTAL
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.	BRAHMAGIRI	1	4	2	-	-	-	3	10
2.	JADIGENA HALLI	1	2	-	-	-	-	-	3
3.	SAVANA DURGA	4	4	2	-	-	-	-	10
4.	MASKI	3	-	-	-	-	-	-	3
5.	AMIRTHA MANGALAM	-	-	1	-	-	-	-	1
6.	CHINGLEPUT	-	-	1	-	-	-	-	1

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
7.	SANUR	9	16	1	-	-	-	2	28
8.	NAGARJUNA KONDA	1	-	1	1	-	-	-	3
9.	RAMAPURAM	2	-	-	-	-	-	-	2
10.	YELLESWARAM	-	-	2	-	-	-	-	2
11.	KOVALAN POTTAL	1	1	-	-	-	-	-	2
12.	KAMBARMEDU	2	-	-	-	-	-	-	2
13.	KODUMANAL	3	1	-	-	-	-	-	4
		27	28	10	1	-	-	5	71

IRON AGE HABITATION SITES

1.	2.	TWO SIGNS. 3.	THREE SIGNS. 4.	FOUR SIGNS. 5.	FIVE SIGNS. 6.	SIX SIGNS. 7.	SEVEN SIGNS. 8.	OVER-LAPPING 9.	TOTAL 10.
1.	KODUMANAL	43	9	-	-	-	-	9	61
2.	ALAGARAI	28	6	2	1	-	-	10	47
3.	TIRUKKAM PULIYUR	50	6	4	-	-	-	10	70
4.	URAIYUR	15	8	-	1	-	-	8	32
5.	KARUR	24	6	2	2	-	-	2	36
6.	VALLAM	14	2	-	-	-	-	3	19
7.	PERUR	6	2	-	1	-	-	4	13
8.	ARIKAMEDU	8	8	-	2	2	-	5	25
9.	T. NARISIPUR	34	15	2	-	-	-	17	68
10.	VEERAPURAM	1	-	-	-	-	-	-	1
11.	CHARSADA	-	1	2	-	-	-	-	3
12.	KANCHIPURAM	1	1	-	-	-	-	2	4
13.	KORKAI	13	3	-	-	-	-	1	17
		237	67	12	7	2	-	71	396

MUSEUMS

1.	2.	TWO SIGNS. 3.	THREE SIGNS. 4.	FOUR SIGNS. 5.	FIVE SIGNS. 6.	SIX SIGNS. 7.	SEVEN SIGNS. 8.	OVER-LAPPING 9.	TOTAL 10.
1.	G.M. CHENNAI	6	4	-	-	-	-	-	10
2.	G.M. MADURAI	2	1	-	-	-	-	-	3
3.	G.M. SALEM	-	-	-	-	-	-	1	1
4.	G.M. PONDICHERRY	6	3	-	-	-	-	1	10
5.	COIMBATORE MUSEUM	2	-	-	-	-	-	-	2
6.	POONDI MUSEUM	3	1	-	-	-	-	-	4
7.	KALAIMAGAL MUSEUM	5	3	-	1	-	-	1	10
8.	HYDERABAD MUSEUM	2	2	1	-	-	-	2	7
		26	14	1	1	-	-	5	47

LAL, HUNT, NUMA, YAZDANI COLLECTIONS

1.	2.	TWO SIGNS. 3.	THREE SIGNS. 4.	FOUR SIGNS. 5.	FIVE SIGNS. 6.	SIX SIGNS. 7.	SEVEN SIGNS. 8.	OVER-LAPPING 9.	TOTAL 10.
1.	LAL COLLECTIONS	6	3	-	-	-	-	3	12
2.	HUNT COLLECTIONS	5	-	-	-	-	-	1	6
3.	NUMA COLLECTIONS	1	-	1	-	-	-	1	3
4.	YAZDANI COLLECTIONS	-	3	-	-	-	-	-	3
		12	6	1	-	-	-	5	24

PERIODWISE DISTRIBUTION OF THE LIGATURED GRAFFITI WITH THEIR LENGTH

1.	2.	TWO SIGNS. 3.	THREE SIGNS. 4.	FOUR SIGNS. 5.	FIVE SIGNS. 6.	SIX SIGNS. 7.	SEVEN SIGNS. 8.	OVER-LAPPING 9.	TOTAL 10.
1.	PRE-HARAPPAN	9	7	-	-	-	-	10	26
2.	HARAPPAN	64	30	13	4	1	1	5	118
3.	CHALCOLITHIC	51	16	-	1	-	-	18	86
4.	IRON-AGE BURIALS	27	28	10	1	-	-	5	71
5.	IRON-AGE HABITATION	237	67	12	7	2	-	71	396
6.	VARIOUS MUSEUMS	26	14	1	1	-	-	5	47
7.	LAL, HUNT, NUMA, YAZDANI COLLECTIONS	12	6	1	-	-	-	5	24
		426	168	37	14	3	1	119	768

TABLE VIII

LIGATURED GRAFFITI WITH SIGNS OF DIFFERENT COMBINATIONS LIKE INDUS, BRAHMI ETC.

SL.No.	LIGATURED GRAFFITI WITH DIFFERENT COMBINATION OF SYMBOLS.	NO. OF LIGATURED GRAFFITI FROM CHALCOLITHIC		NO. OF LIGATURED GRAFFITI FROM IRON-AGE	
		HABITATION	BURIAL	HABITATION	BURIAL
1.	INDUS SIGNS ALONE	13	-	83	20
2.	INDUS PLUS GRAFFITI	7	2	94	33
3.	BRAHMI PLUS GRAFFITI	12	-	70	15
4.	GRAFFITI ALONE	43	4	103	45
5.	ALL COMBINATIONS (INDUS + BRAHMI + GRAFFITI)	5	-	48	8
		80	6	398	121

TABLE IX

FREQUENCY OF BRAHMI LETTER LIKE GRAFFITI IN DIFFERENT CULTURES

SYMBOL No. (Figs. 50-51)	IRON-AGE BURIALS SITES	IRON-AGE HABITATION SITES	CHALCOLITHIC SITES	HARAPPAN SITES	PRE-HARAPPAN SITES
1.	2.	3.	4.	5.	6.
1.	2	12	3	-	1
2.	-	1	-	-	-
3.	-	10	-	-	1

SYMBOL No. (Figs. 50-51)	IRON-AGE BURIALS SITES	IRON-AGE HABITATION SITES	CHALCOLITHIC SITES	HARAPPAN SITES	PRE-HARAPPAN SITES
1.	2.	3.	4.	5.	6.
4.	1	7	2	-	-
5.	-	1	-	-	-
6.	2	7	1	-	-

1.	2.	3.	4.	5.	6.
7.	1	-	-	-	-
8.	-	2	-	-	-
9.	-	1	-	-	-
10.	2	3	4	2	3
11.	9	27	5	1	2
12.	-	3	-	-	-
13.	-	1	-	-	-
14.	-	1	1	-	-
15.	-	1	-	-	-
16.	-	1	-	-	-
17.	-	1	-	-	-
18.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
19.	-	2	1	-	-
20.	15	74	5	7	7
21.	2	4	-	-	1
22.	2	-	-	1	-
23.	-	7	-	-	-
24.	1	-	-	-	-
25.	1	1	-	-	-
26.	-	1	-	4	-
27.	2	5	-	4	-
28.	-	1	-	-	-
29.	-	1	-	-	-
30.	1	5	2	-	1

1.	2.	3.	4.	5.	6.
31.	-	-	1	-	-
32.	-	-	-	-	1
33.	1	9	1	-	-
34.	5	14	-	2	1
35.	2	-	-	-	-
36.	-	1	-	-	-
37.	-	1	-	-	-
38.	1	-	1	-	-
39.	-	-	-	-	1
40.	1	-	-	-	-
41.	-	2	-	-	-
42.	5	8	3	2	1

1.	2.	3.	4.	5.	6.
43.	-	2	-	2	-
44.	-	4	-	-	-
45.	-	-	1	-	-
46.	3	25	6	1	-
47.	-	4	-	-	-
48.	-	1	-	-	-
49.	-	3	-	-	-
50.	1	6	2	-	-
51.	-	3	-	-	-
52.	-	1	-	-	-
53.	1	-	-	-	-
54.	-	1	-	-	-

1.	2.	3.	4.	5.	6.
55.	3	-	-	-	-
56.	-	3	-	-	-
57.	-	1	-	-	-
58.	1	2	-	-	-
59.	11	7	1	1	2
60.	-	1	-	-	1
61.	-	5	1	-	-
62.	1	1	-	-	-
63.	-	10	2	1	-

1.	2.	3.	4.	5.	6.
64.	-	4	-	-	-
65.	1	7	-	1	-
66.	-	2	-	-	-
67.	-	-	-	1	-
68.	-	2	-	-	-
69.	-	3	-	-	-
70.	-	1	1	-	-
71.	2	10	-	3	2
72.	-	1	-	-	-

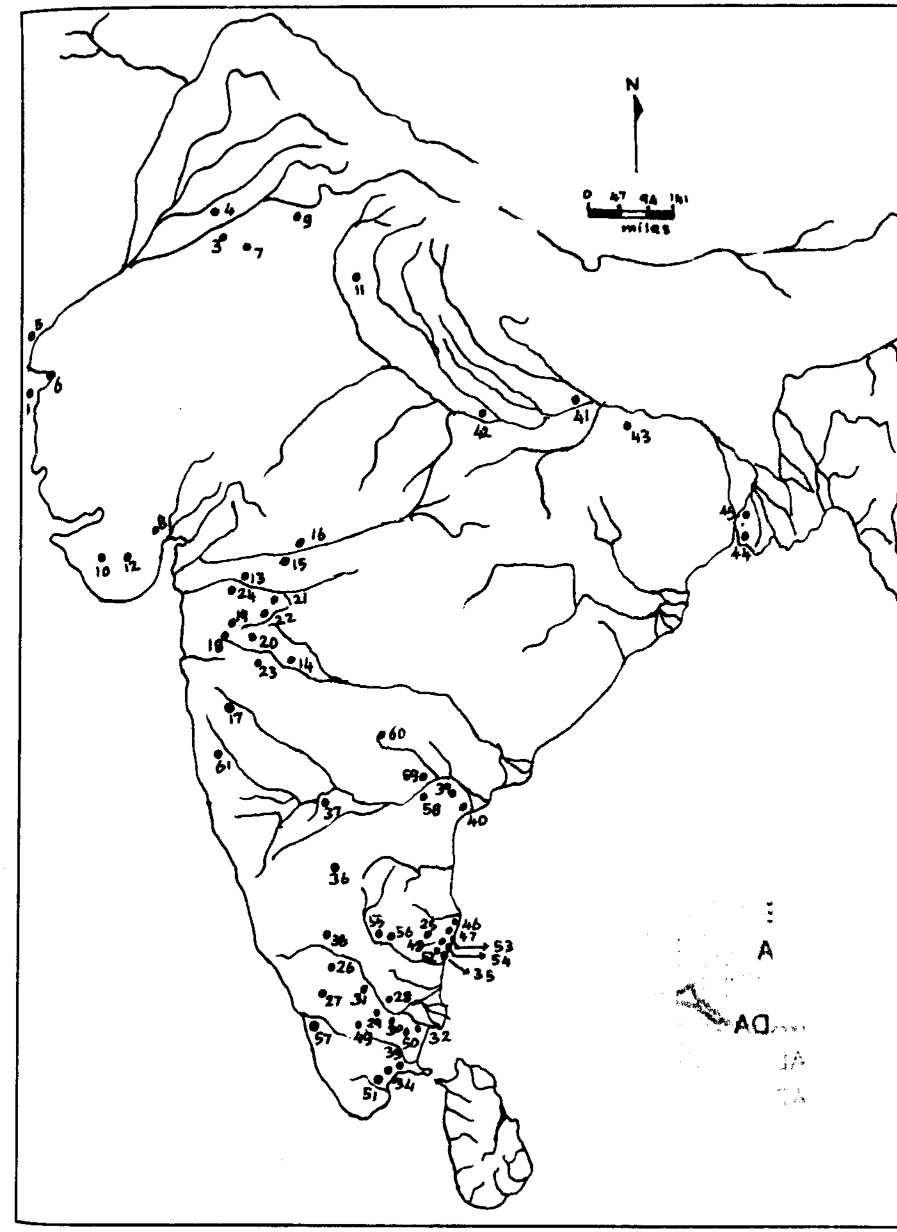


FIGURE : 1

DISTRIBUTION OF GRAFFITI BEARING SITES

LIST OF SITES SHOWN IN FIGURE 1.

PRE-HARAPPAN SITES :

1. AMRI
2. QUETTA
3. GANESHWAR

HARAPPAN SITES :

4. HARAPPA
5. MOHENJO DARO
6. CHANHU DARO
7. KALIBANGAN
8. LOTHAL
9. CHANDIGARH
10. ROJDI
11. ALAMGIRPUR

CHALCOLITHIC SITES :

12. RANGPUR
13. PRAKASH
14. DAIMABAD
15. NAVDATOLI
16. MAHESHWAR
17. CHANDOLI
18. NASIK
19. JORWE
20. NEVASA
21. BAHAL
22. TEKWADA
23. NAGAL
24. KORAT

IRON-AGE HABITATION SITES :

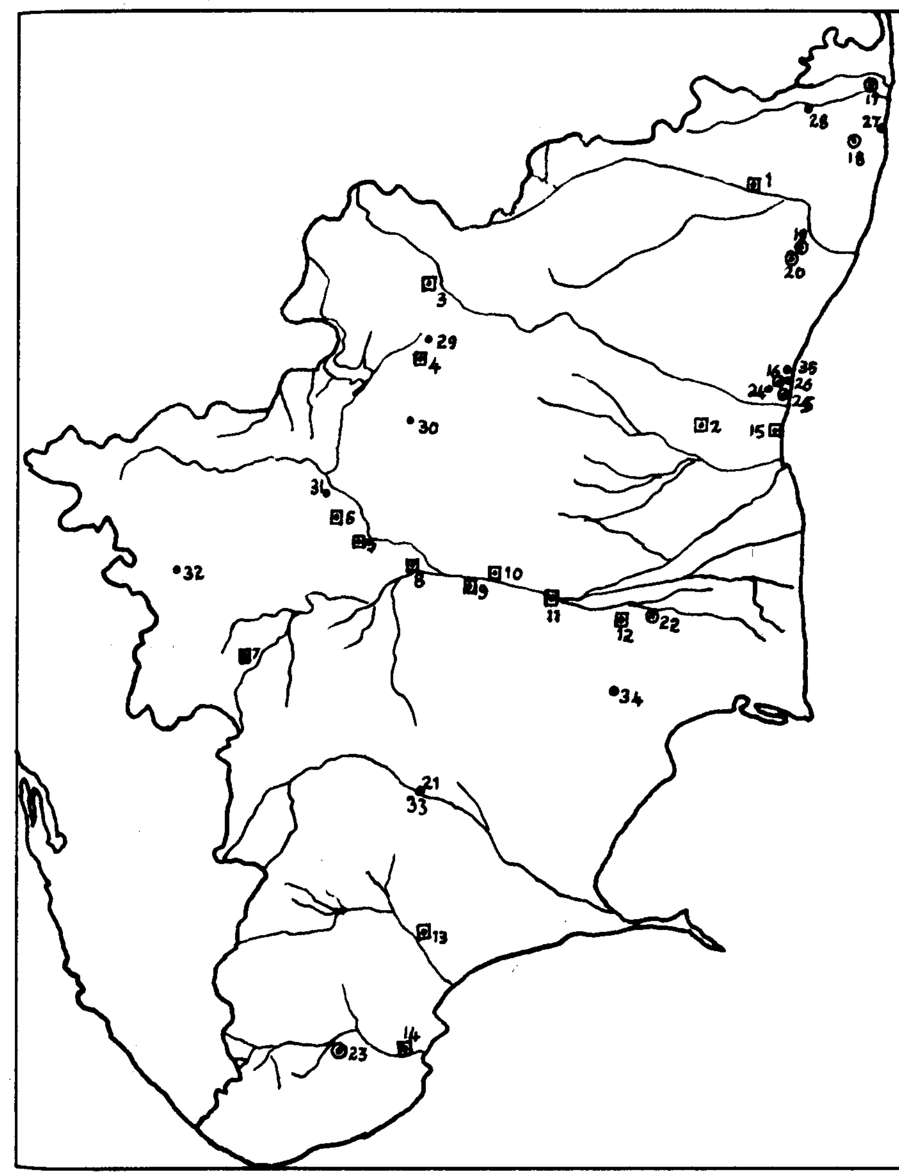
25. KANCHIPURAM
26. KODUMANAL
27. PERUR
28. ALAGARAI
29. TIRUKKAMPULIYUR
30. URAIYUR
31. KARUR
32. VALLAM
33. KORKAI
34. ALAGANKULAM
35. ARIKAMEDU
36. BRAHMAGIRI
37. MASKI
38. T. NARASIPUR
39. SALIHUNDAM
40. VEERAPURAM
41. RAJGHAT
42. KAUSAMBI
43. SONEPUR
44. CHANDRAKETHUGARH
45. PANDURAJAHAR DHIBI

IRON-AGE BURIAL SITES :

46. KUNATTUR
47. SANUR
48. KOVALANPOTTAL
49. PERUMBAAIR
50. KAMABARMEDU
51. ADICHCHANALLUR
52. VIRAMPATTINAM
53. SOUTTOUKENI
54. MUTTARAPALAYAM
55. JADIGENAHALLI
56. SAVANADURGA
57. FEROKE
58. YELLESWARAM
59. NAGARJUNAKONDA
60. RAMAPURAM
61. THEYUR

GRAFFITI BEARING SITES IN TAMIL NADU

SCALE 1:7,50,00



IRON AGE HABITATION SITES ..... ▣

IRON AGE BURIAL SITES .... ◎

MUSEUMS .... ●

FIGURE : 2

GRAFFITI BEARING SITES IN TAMIL NADU SHOWN IN FIGURE (2)

1. KANCIPURAM
2. SENGAMEDU
3. GUTTUR
4. ADIYAMANKOTTAI
5. KODUMANAL
6. SIVAGIRI
7. PERUR
8. KARUR
9. TIRUKKAMPULIYUR
10. ALAGARAI
11. URAIYUR
12. VALLAM
13. ALAGANKULAM
14. KORKAI
15. KUDUKKADU
16. ARIKEMADU
17. AMIRTHAMANGALAM
18. KUNNATTUR
19. SANUR
20. PERUMBAIR
21. KOVALANPOTTAL
22. KAMBARMEDU
23. ADICHCHANALLUR
24. MUTTARAPALAYAM
25. SOUTOUKENI
26. VIRAMPATNAM

MUSEUMS :

27. CHENNAI
28. POONDI
29. DHARMAPURI
30. SALEM
31. ERODE
32. COIMBATORE
33. MADURAI
34. PUDUKKOTTAI
35. PONDICHERRY

IRON AGE HABITATION SITES	:	1 - 16
IRON AGE BURIAL SITES	:	17 - 26
MUSEUMS	:	27 - 35

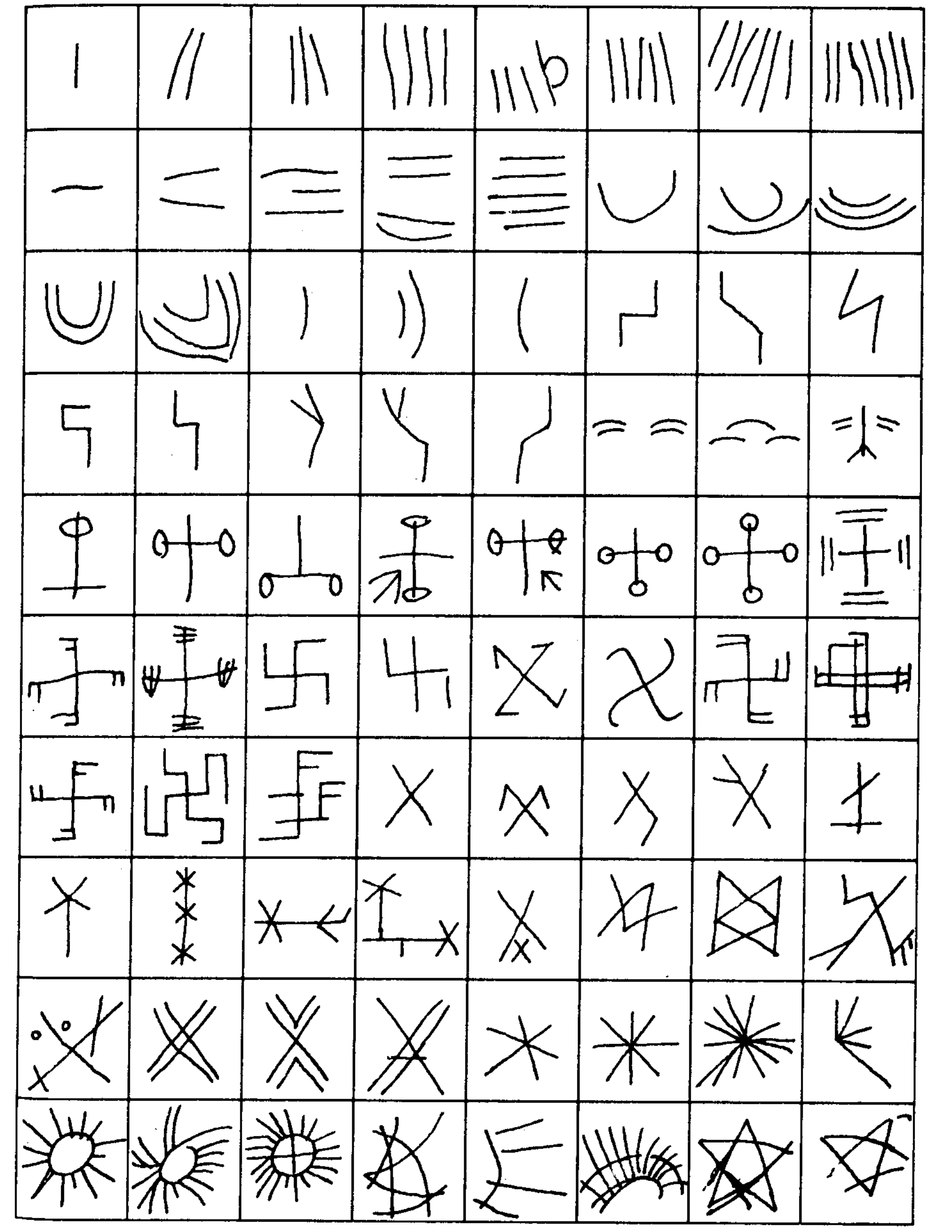


FIGURE : 3

PROMINENT GRAFFITI SYMBOLS

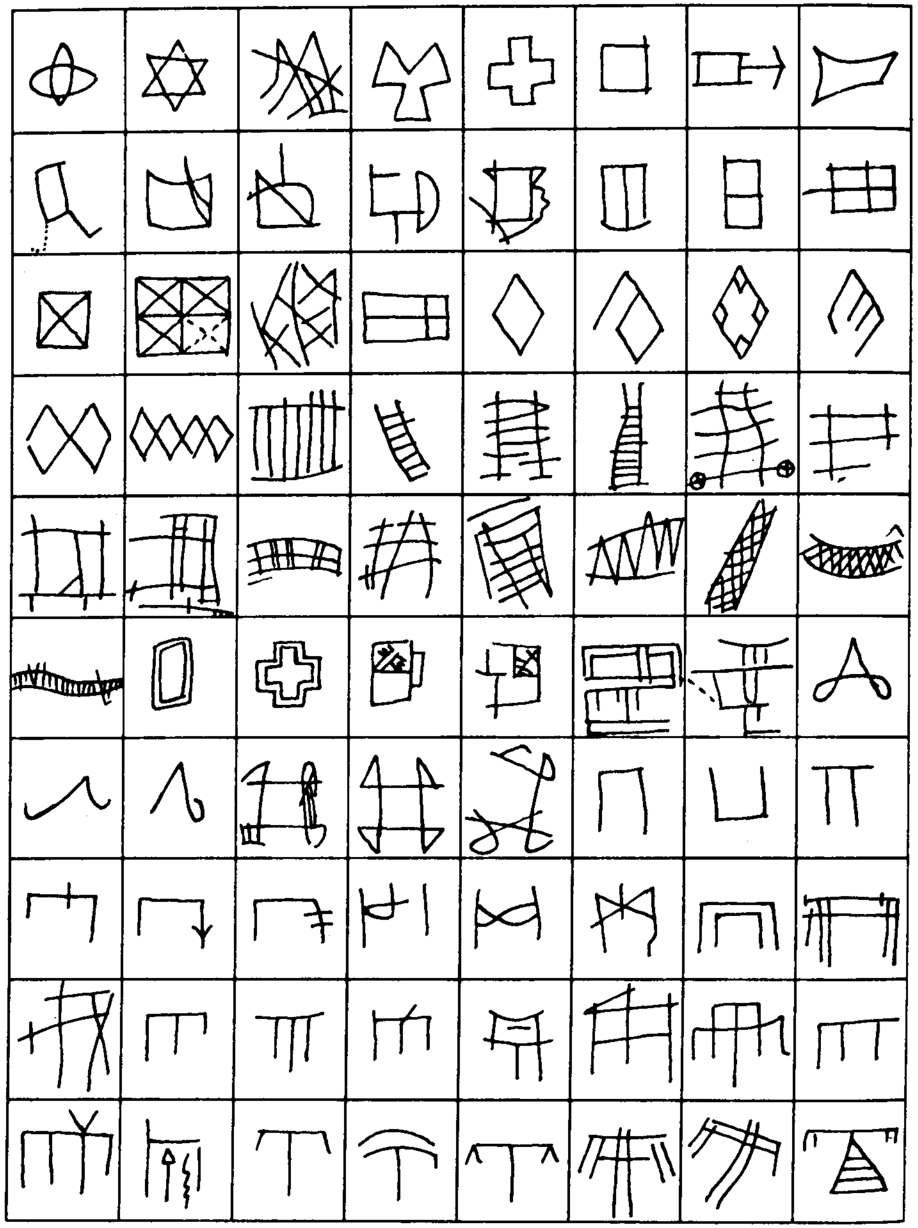


FIGURE : 4

PROMINENT GRAFFITI SYMBOLS

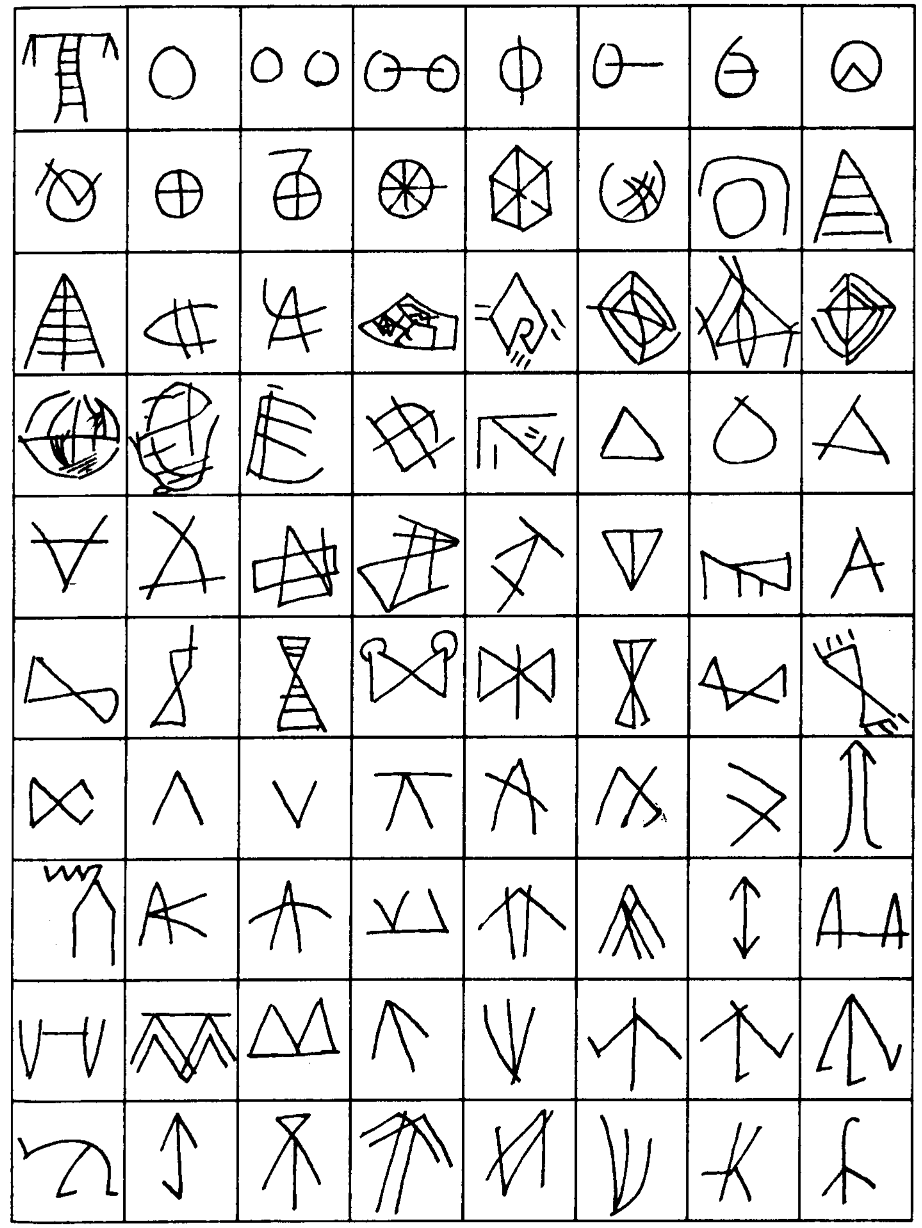


FIGURE : 5

PROMINENT GRAFFITI SYMBOLS

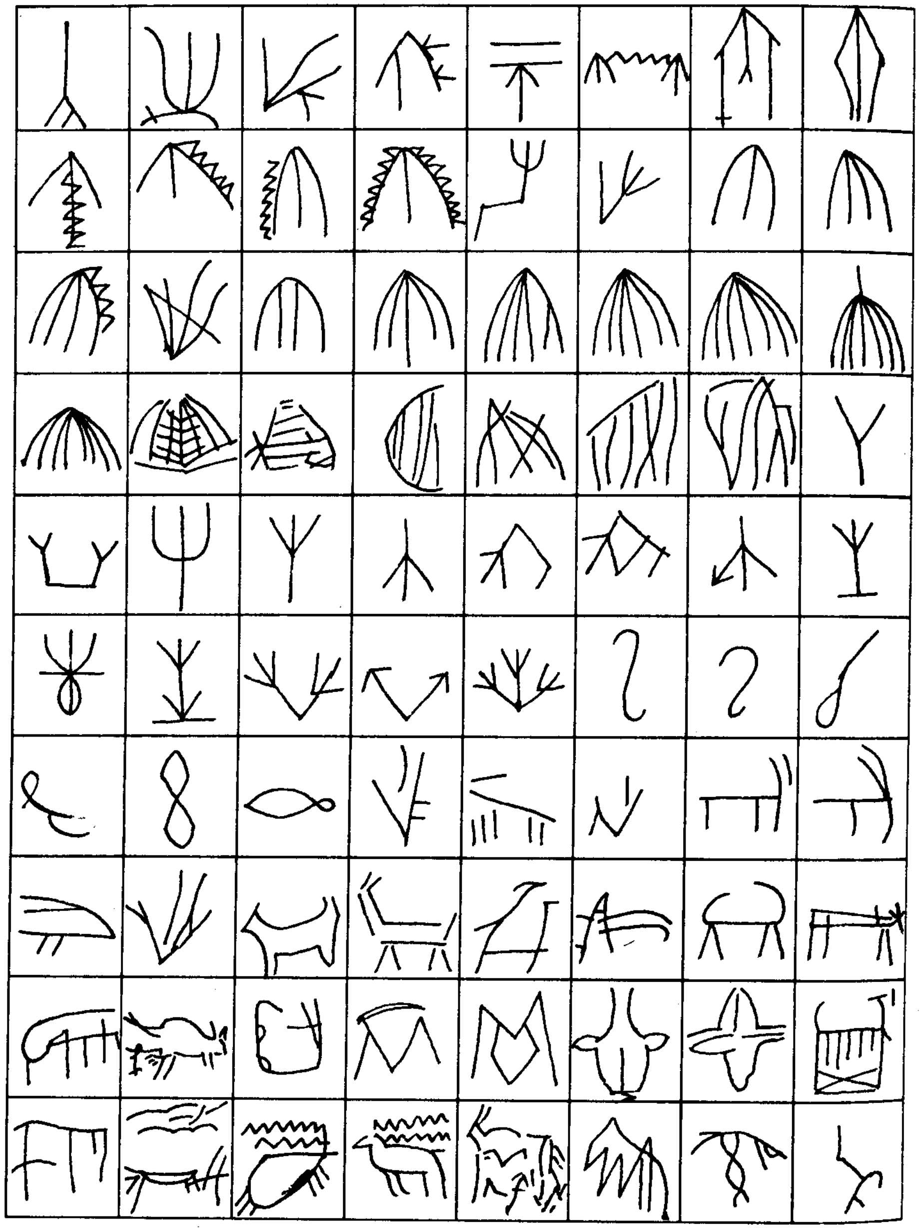


FIGURE : 6

PROMINENT GRAFFITI SYMBOLS

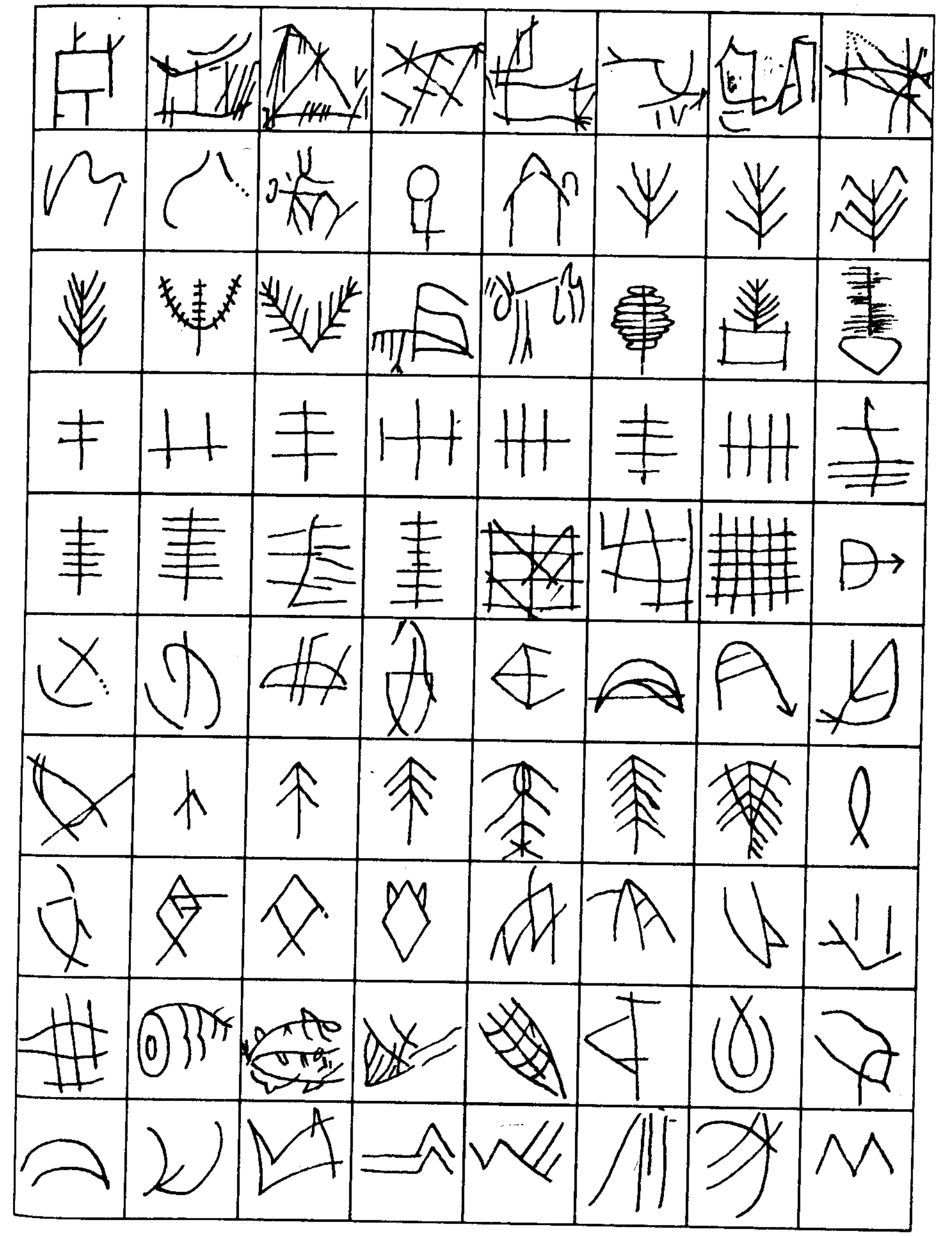


FIGURE : 7

PROMINENT GRAFFITI SYMBOLS

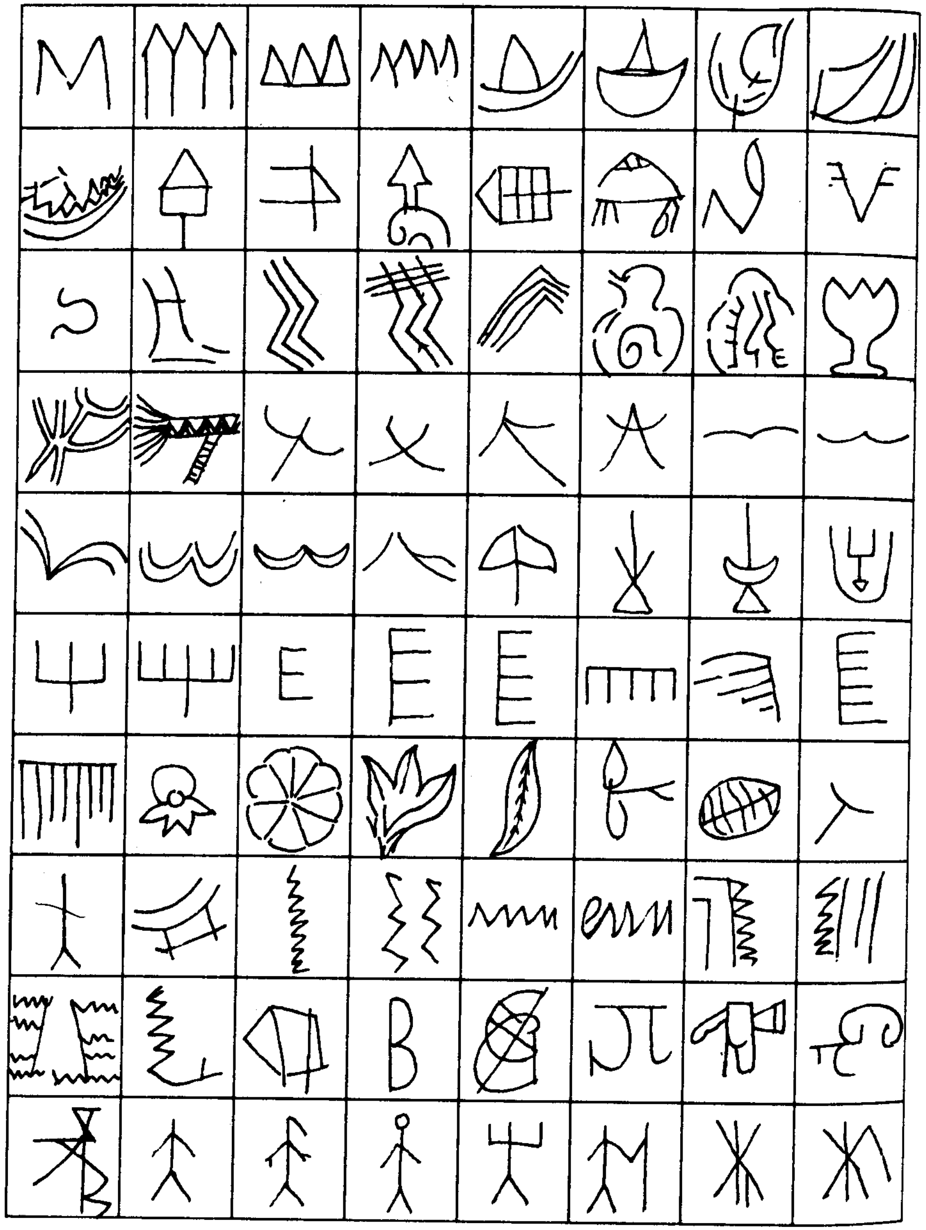


FIGURE : 8

PROMINENT GRAFFITI SYMBOLS

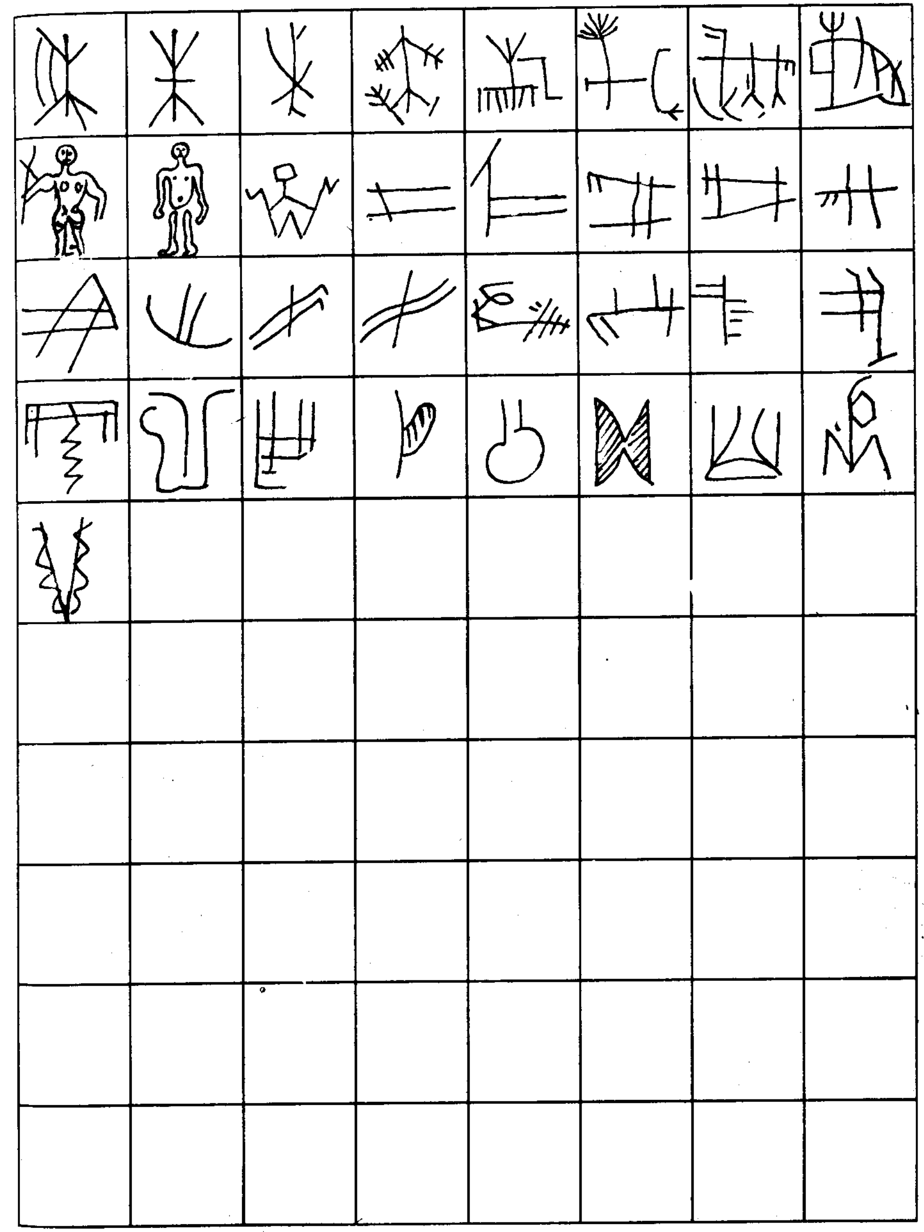
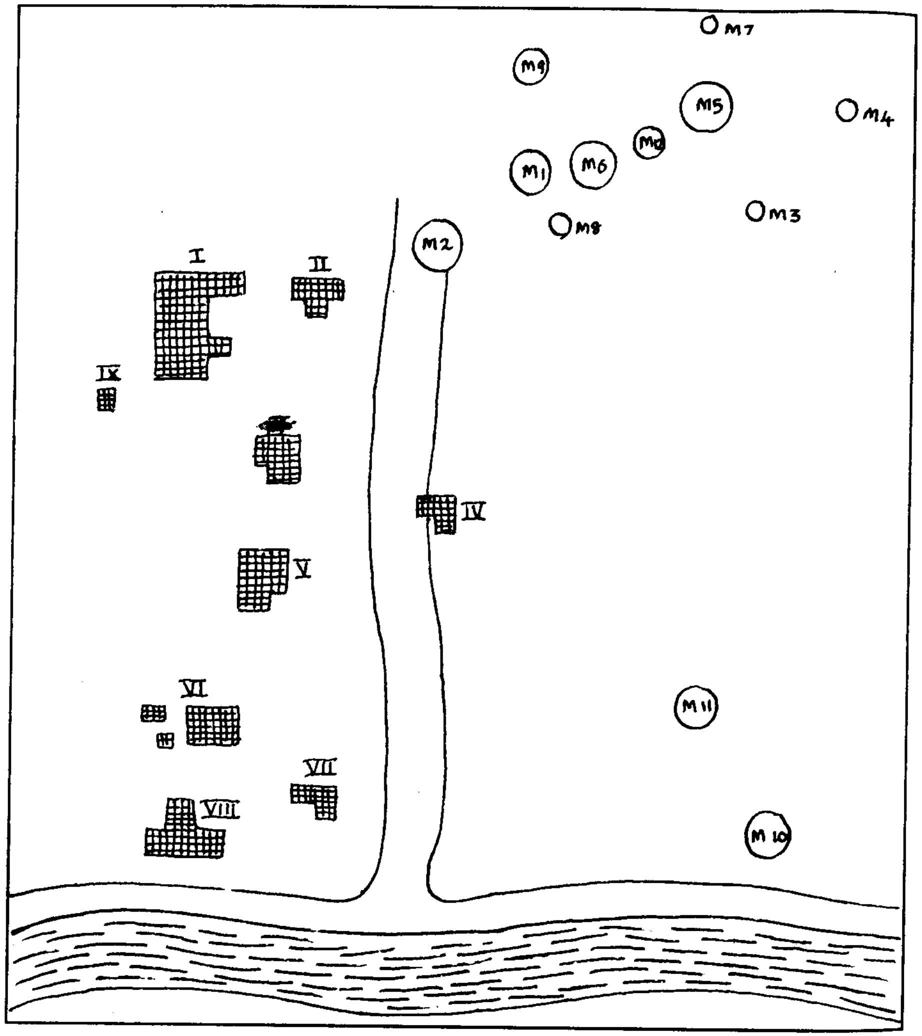


FIGURE : 9

PROMINENT GRAFFITI SYMBOLS



NOYYAL NOT TO SCALE

Burials

Habitation Area

FIGURE : 10

SITE PLAN SHOWING THE BURIALS AND HABITATION AREAS EXCAVATED AT KODUMANAL

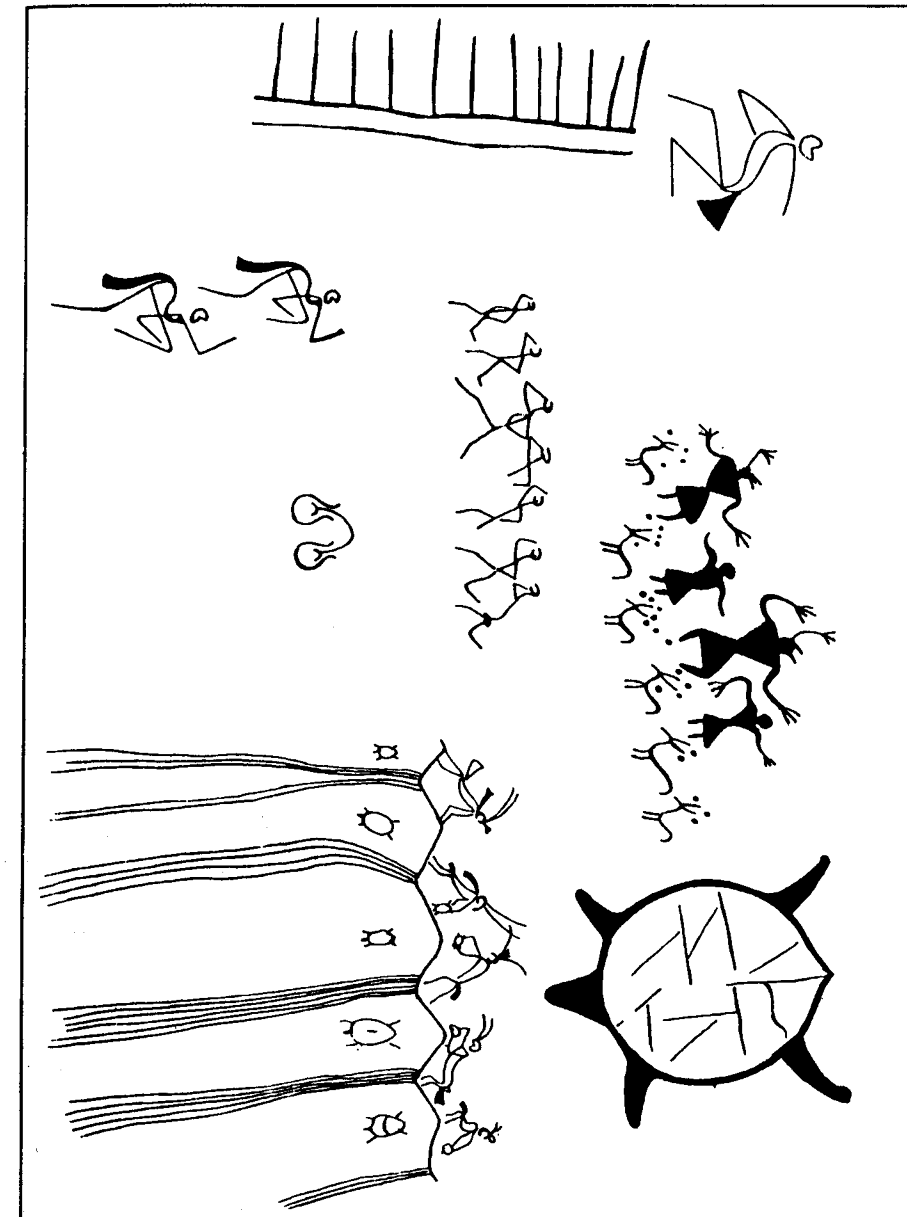


FIGURE : 11 & 12

CHALCOLITHIC ROCK PAINTINGS

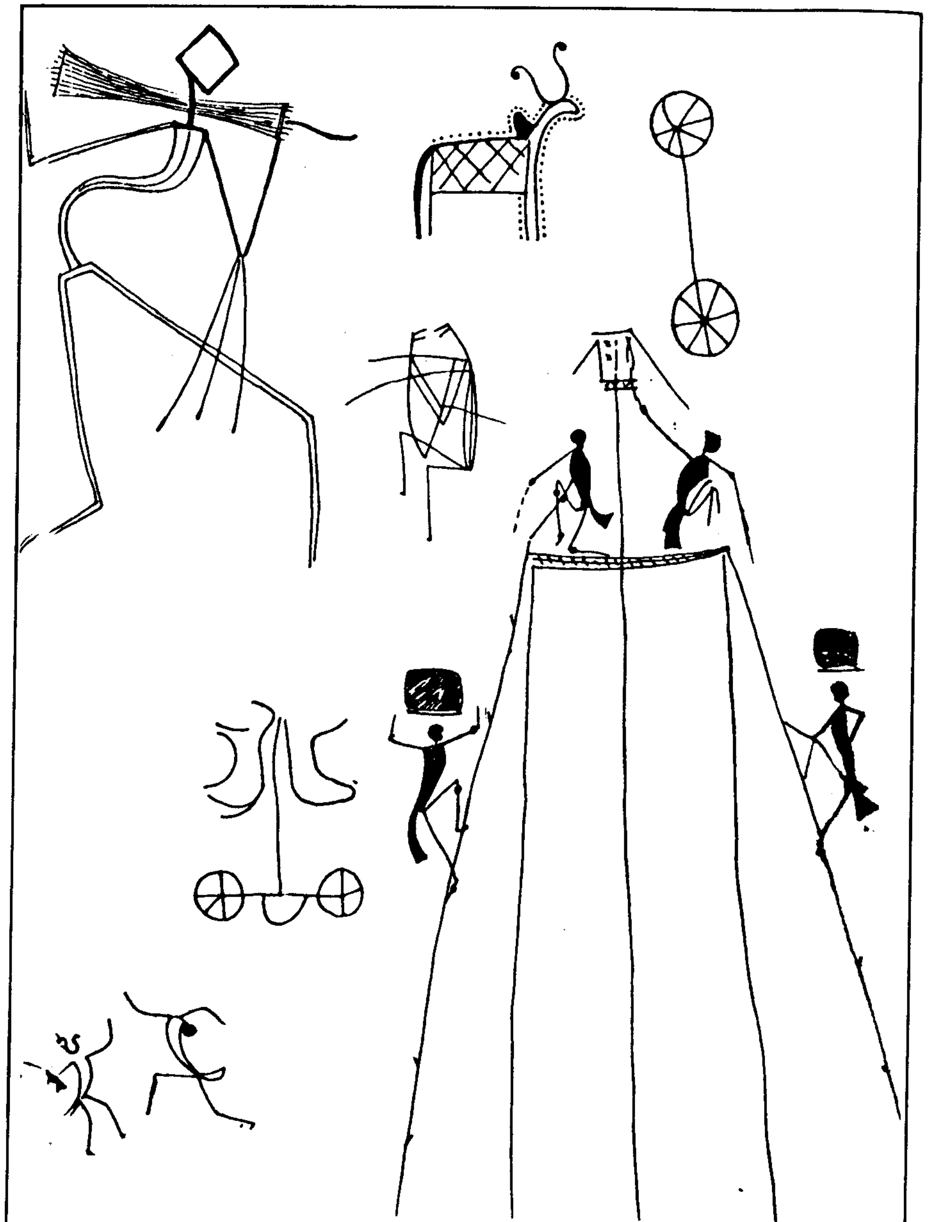


FIGURE : 12

CHALCOLITHIC ROCK PAINTINGS

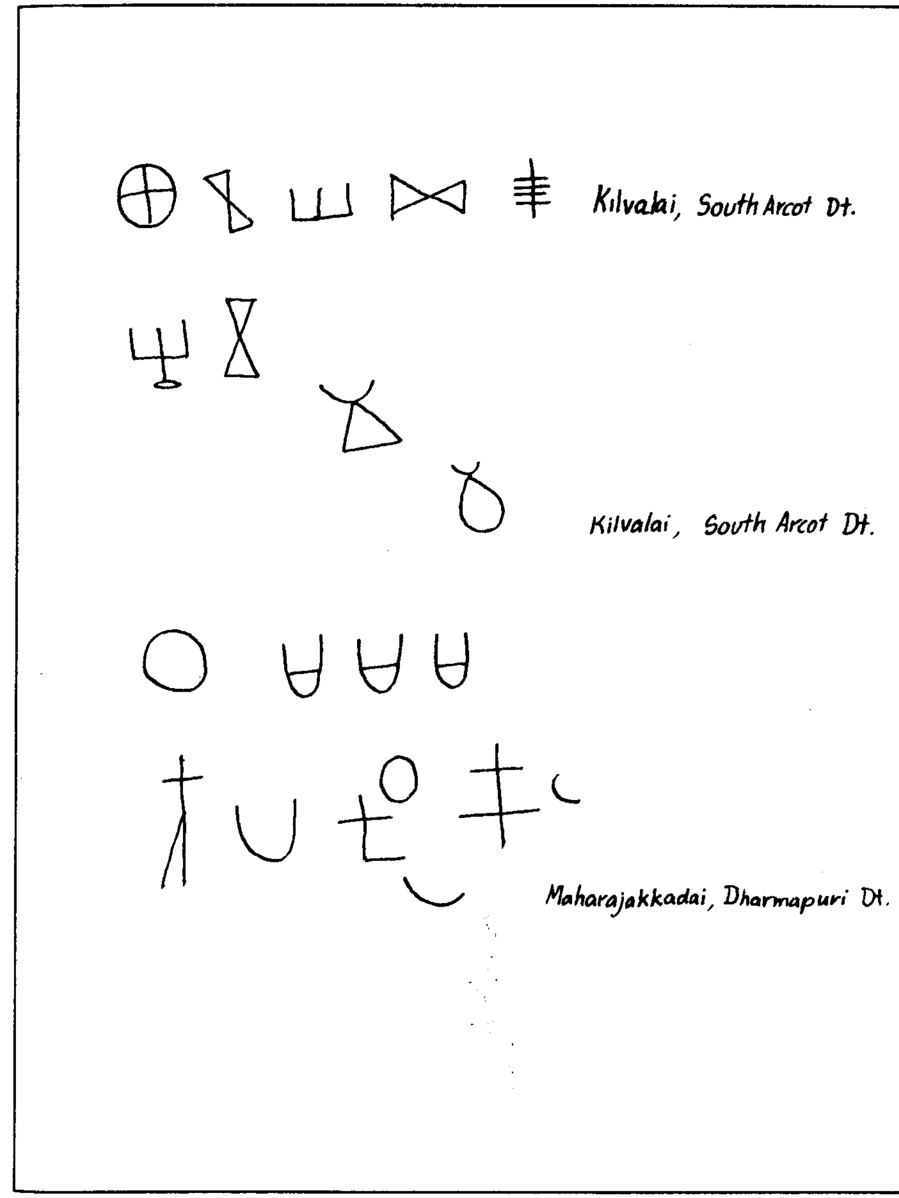


FIGURE : 13

ROCK PAINTINGS WITH PAINTED LETTERS - KILVALAI AND MAHARAJAKADAI

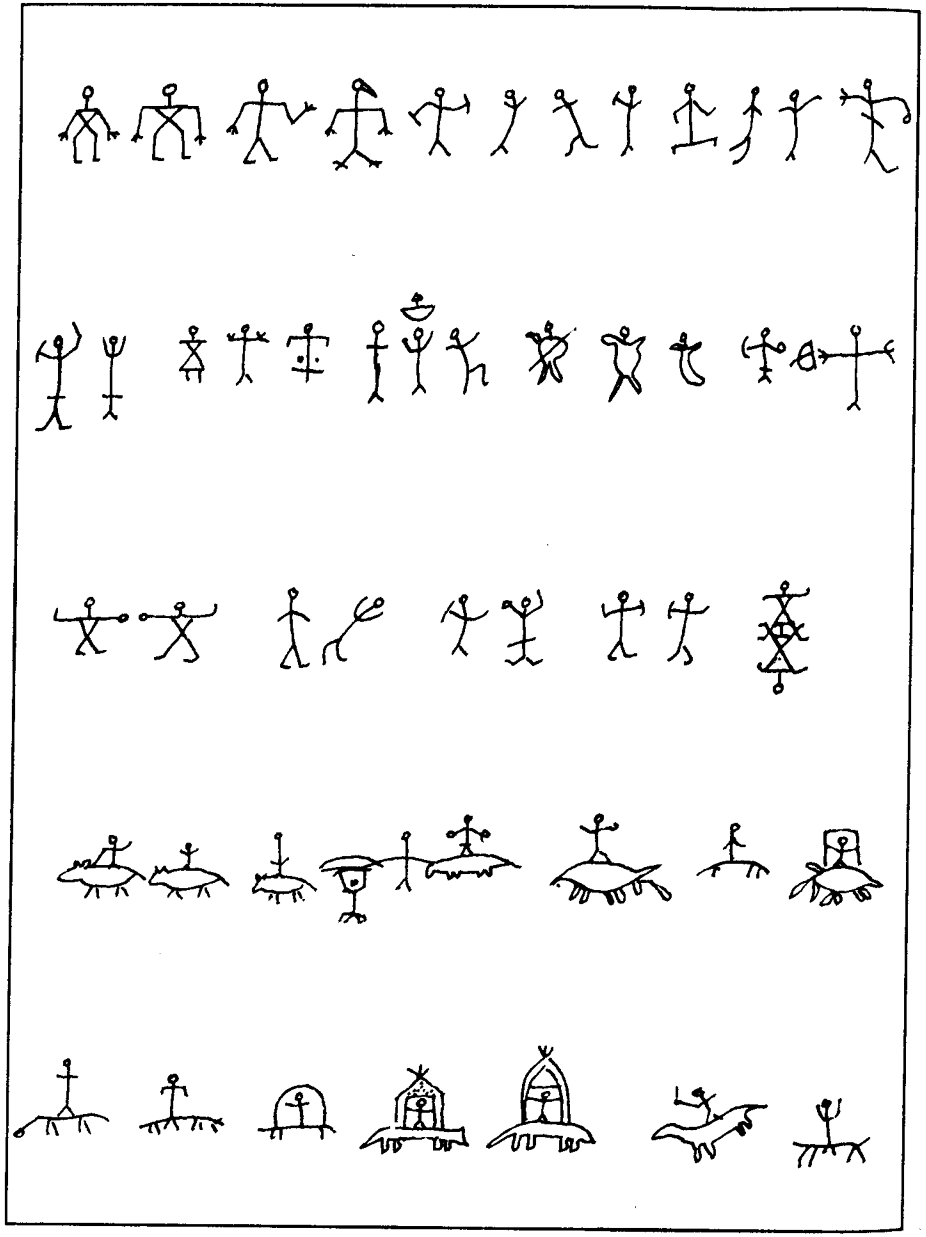


FIGURE : 14 & 15

ROCK PAINTINGS - DHARMAPURI DISTRICT

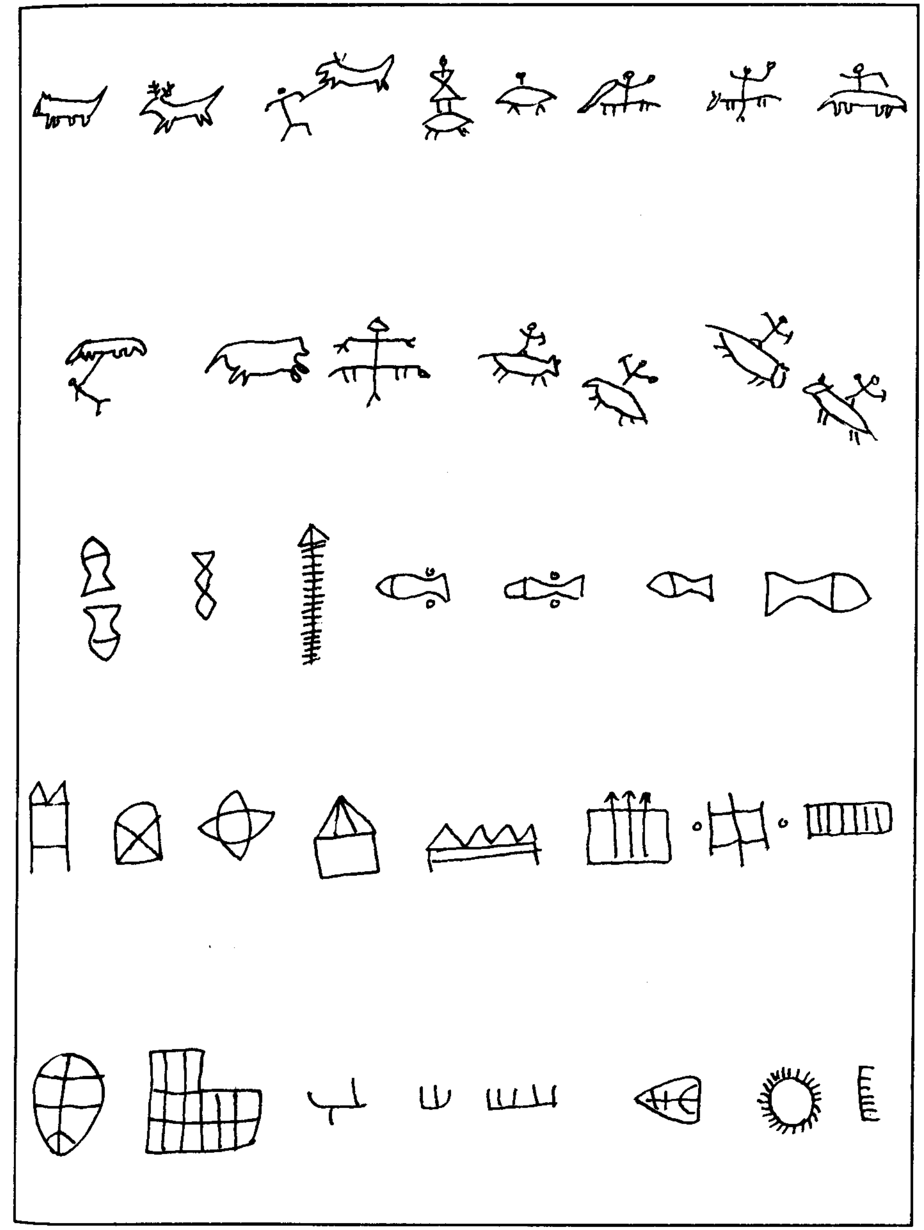
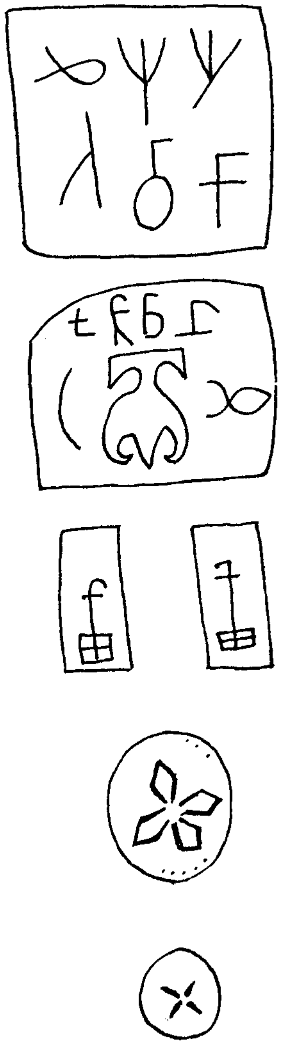


FIGURE : 15

ROCK PAINTINGS - DHARMAPURI DISTRICT



a. Annaikottai, Sri Lanka, Bronze Seal

b. Karur, Trichy Dt., Silver Seal

c. Alangankulam, Ramnad Dt., Pottery

d. Kudikkadu, South Arcot Dt., Terracottah

e. Tirukkampuliyur, Trichy Dt., Terracottah

FIGURE : 16

ANCIENT SEALS

SERIAL NO.	INDIAN GRAFFITI	SUMERIAN	LINEAR-B, CRETAN	PROTOELAMITE	LYCIANS	CARIANS	CYPRIOTE	CANNANITE	ETRUSCAN	SINATIC	PHOENICIAN	ARCHAICGREEK	HEBREW	BRAHMI	SOUTH ARAB
1	|				✓										
2	||								✓						
3	||||								✓						
4	≡	✓													
5	[illegible]		✓				✓								
6	[illegible]		✓					✓			✓	✓			
7	[illegible]		✓												
8	[illegible]	✓													
9	[illegible]						✓								
10	[illegible]						✓								
11	(		✓												
12	⌒	✓													
13	[illegible]		✓												
14	[illegible]				✓		✓								
15	[illegible]		✓												
16	┐	✓				✓		✓	✓					✓	✓
17	┌	✓	✓		✓	✓			✓		✓	✓		✓	
18	├	✓												✓	

FIGURE : 17

INDIAN GRAFFITI AND ARCHAIC SCRIPTS

SERIAL NO.	INDIAN GRAFFITI	SUMERIAN	LINEAR-B, CRETAN	PROTOELAMITE	LYCIANS	CARIANS	CYPRIOTE	CANNANITE	ETRUSCAN	SINATIC	PHOENICIAN	ARCHAIC GREEK	HEBREW	BRAHMI	SOUTH ARAB
19	⊣						✓							✓	
20	Ⱡ		✓											✓	
21	T	✓			✓		✓				✓	✓	✓	✓	
22	I				✓			✓		✓	✓			✓	
23	〉	✓							✓						
24	Λ					✓		✓			✓	✓		✓	
25	V				✓	✓			✓						
26	Ѵ						✓								
27	≡Λ		✓												
28	M	✓								✓		✓	✓		
29	W		✓		✓			✓			✓	✓		✓	
30	◊	✓		✓	✓										✓
31	B	✓										✓			
32	∇∇					✓									
33	∢					✓									
34	ΔΔ		✓	✓		✓									
35	ΔΔΔ		✓	✓											
36	Δ				✓		✓		✓					✓	

FIGURE : 18

INDIAN GRAFFITI AND ARCHAIC SCRIPTS

SERIAL NO.	INDIAN GRAFFITI	SUMERIAN	LINEAR-B, CRETAN	PROTOELAMITE	LYCIANS	CARIANS	CYPRIOTE	CANNANITE	ETRUSCAN	SINATIC	PHOENICIAN	ARCHAIC GREEK	HEBREW	BRAHMI	SOUTH ARAB
37	P					✓		✓			✓	✓			
38	Δ		✓	✓	✓		✓		✓		✓	✓		✓	
39	∇	✓				✓									
40	∀	✓													
41	⊽														
42	Δ					✓									
43	A							✓	✓		✓	✓			
44	∀		✓						✓					✓	
45	∠							✓	✓		✓	✓			
46	K										✓	✓		✓	
47	∇	✓		✓											
48	⍏	✓													
49	Y					✓									
50	⍏		✓												
51	⍋		✓												
52	+	✓	✓					✓	✓	✓				✓	✓
53	X	✓				✓		✓	✓						✓
54	⋇	✓							✓						

FIGURE : 19

INDIAN GRAFFITI AND ARCHAIC SCRIPTS

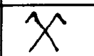
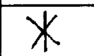
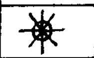
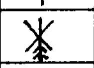
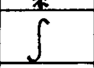
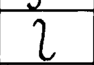
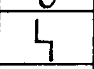
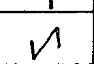
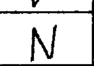
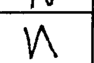
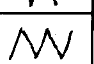
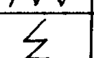
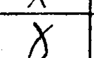
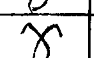
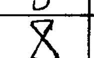
SERIAL NO.	INDIAN GRAFFITI	SUMERIAN	LINEAR-B, CRETAN	PROTOELAMITE	LYCIANS	CARIANS	CYPRIOTE	CANNANITE	ETRUSCAN	SINATIC	PHOENICIAN	ARCHAIC GREEK	HEBREW	BRAHMI	SOUTH ARAB
55						✓									
56			✓												
57		✓													
58							✓		✓						
59		✓													
60			✓												
61									✓					✓	
62									✓					✓	
63								✓	✓		✓	✓	✓	✓	✓
64									✓				✓	✓	✓
65			✓			✓	✓		✓					✓	
66						✓	✓	✓						✓	
67					✓					✓	✓	✓			
68					✓										
69		✓								✓					
70							✓							✓	
71			✓											✓	
72						✓									✓

FIGURE : 20

INDIAN GRAFFITI AND ARCHAIC SCRIPTS

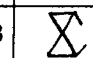
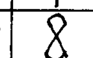
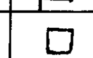
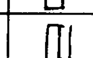
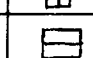
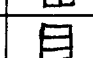
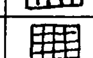
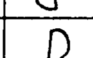
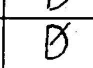
SERIAL NO.	INDIAN GRAFFITI	SUMERIAN	LINEAR-B, CRETAN	PROTOELAMITE	LYCIANS	CARIANS	CYPRIOTE	CANNANITE	ETRUSCAN	SINATIC	PHOENICIAN	ARCHAIC GREEK	HEBREW	BRAHMI	SOUTH ARAB
73		✓												✓	
74									✓						
75									✓						
76		✓	✓											✓	
77							✓		✓	✓		✓			
78		✓													✓
79			✓			✓			✓	✓				✓	
80						✓									
81						✓									
82															
83		✓	✓					✓				✓			
84		✓		✓					✓			✓			
85			✓					✓		✓					
86		✓													
87		✓													
88						✓			✓					✓	
89						✓			✓					✓	
90						✓									

FIGURE : 21

INDIAN GRAFFITI AND ARCHAIC SCRIPTS

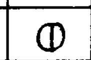
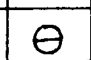
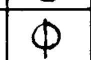
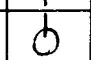
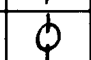
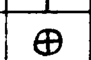
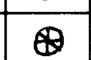
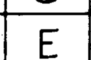
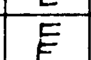
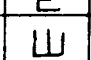
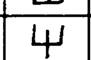
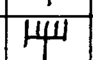
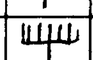
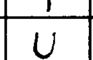
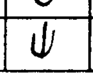
SERIAL NO.	INDIAN GRAFFITI	SUMERIAN	LINEAR-B, CRETAN	PROTOELAMITE	LYCIANS	CARIANS	CYPRIOTE	CANNANITE	ETRUSCAN	SINATIC	PHOENICIAN	ARCHAIC GREEK	HEBREW	BRAHMI	SOUTH ARAB
91		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
92				✓		✓						✓		✓	
93												✓			
94						✓		✓			✓	✓		✓	✓
95						✓		✓			✓	✓		✓	✓
96						✓		✓			✓	✓		✓	✓
97						✓									
98						✓		✓	✓		✓	✓			
99						✓		✓			✓	✓			
100									✓						
101		✓			✓	✓						✓		✓	
102									✓						
103						✓			✓						
104						✓			✓						✓
105		✓													
106									✓						
107				✓					✓				✓		
108				✓					✓					✓	

FIGURE : 22

INDIAN GRAFFITI AND ARCHAIC SCRIPTS

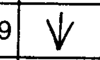
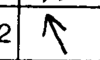
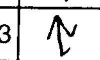
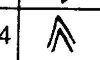
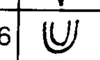
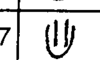
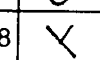
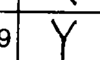
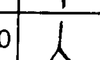
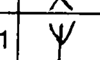
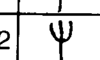
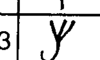
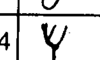
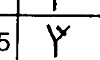
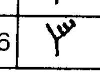
SERIAL NO.	INDIAN GRAFFITI	SUMERIAN	LINEAR-B, CRETAN	PROTOELAMITE	LYCIANS	CARIANS	CYPRIOTE	CANNANITE	ETRUSCAN	SINATIC	PHOENICIAN	ARCHAIC GREEK	HEBREW	BRAHMI	SOUTH ARAB
109									✓					✓	
110					✓	✓					✓	✓	✓	✓	
111		✓	✓			✓	✓		✓						
112		✓		✓											
113							✓								
114					✓				✓						
115		✓													
116		✓													
117										✓					
118								✓	✓			✓			
119		✓			✓				✓					✓	
120		✓												✓	✓
121			✓	✓		✓			✓		✓			✓	
122						✓									
123						✓									
124						✓									
125					✓	✓									
126					✓	✓									

FIGURE : 23

INDIAN GRAFFITI AND ARCHAIC SCRIPTS

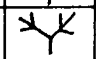
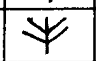
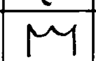
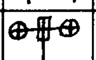
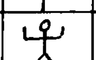
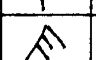
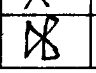
SERIAL NO.	INDIAN GRAFFITI	SUMERIAN	LINEAR-B, CRETAN	PROTOELAMITE	LYCIANS	CARIANS	CYPRIOTE	CANNANITE	ETRUSCAN	SINATIC	PHOENICIAN	ARCHAIC GREEK	HEBREW	BRAHMI	SOUTH ARAB
127					✓										
128		✓													
129					✓										
130		✓	✓												
131									✓						
132			✓												
133			✓		✓										
134													✓		
135			✓												
136									✓						
137										✓					
138			✓												
139			✓												
140								✓	✓		✓	✓		✓	
141							✓								
142						✓									
143					✓				✓						
144		✓													

FIGURE : 24

INDIAN GRAFFITI AND ARCHAIC SCRIPTS

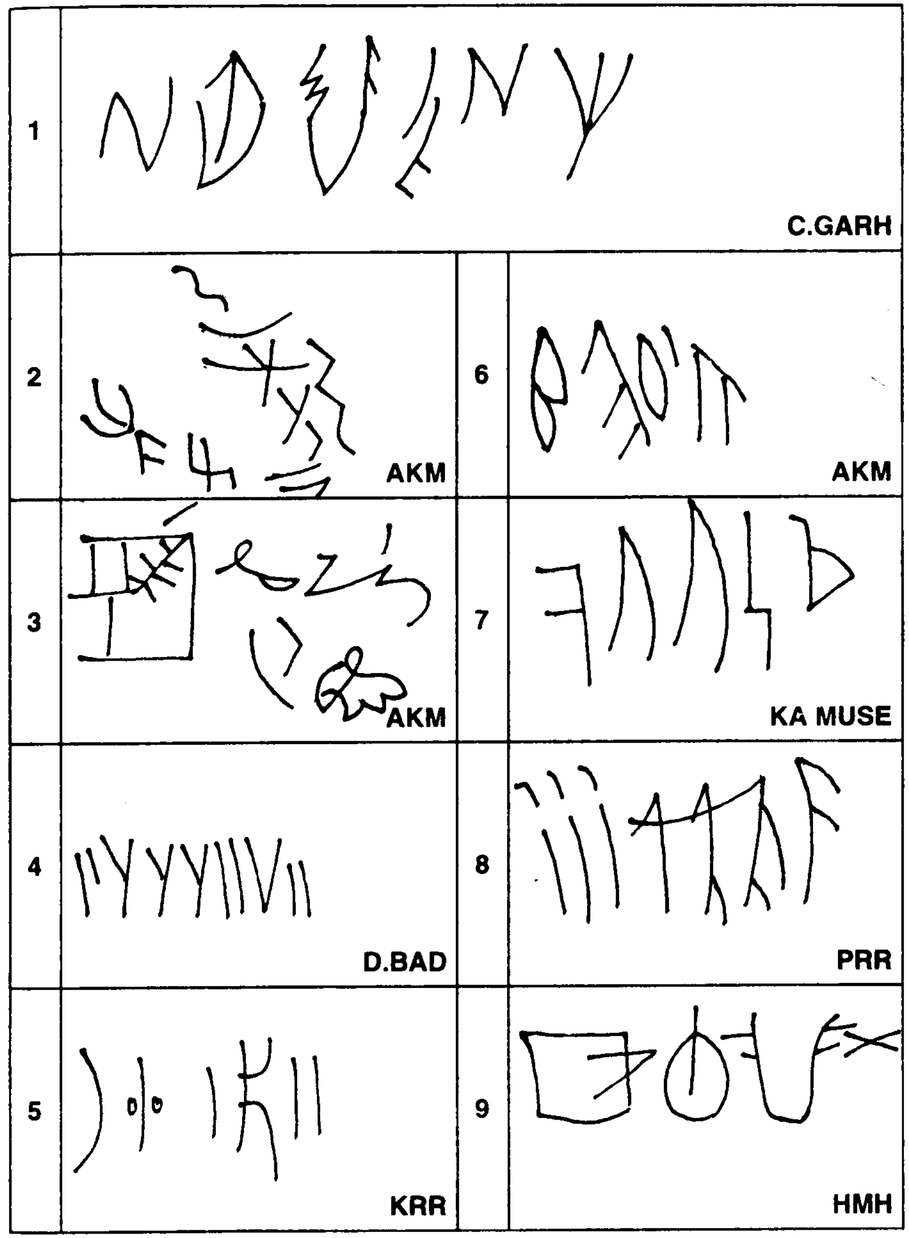


FIGURE : 25

PROMINENT LIGATURED GRAFFITI

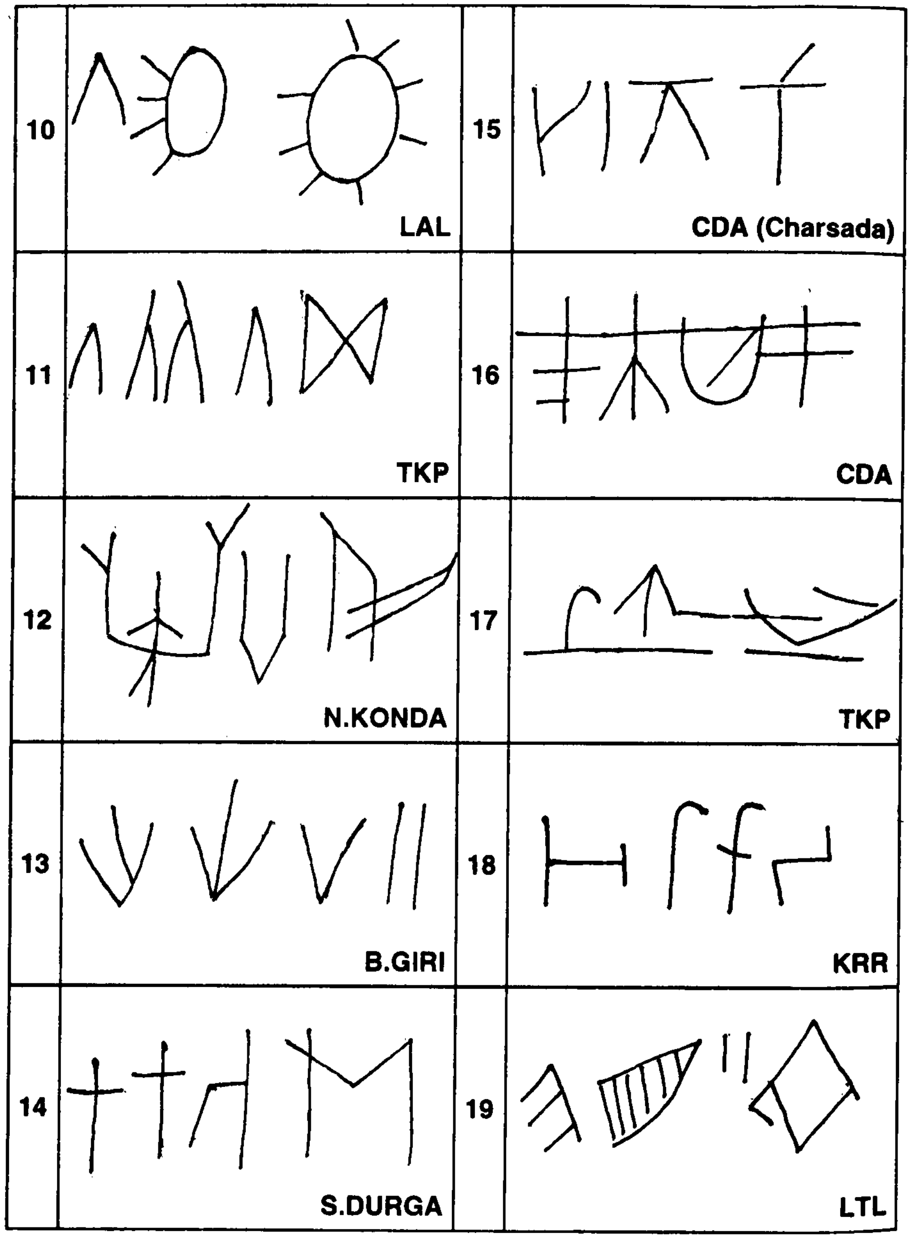


FIGURE : 26

PROMINENT LIGATURED GRAFFITI

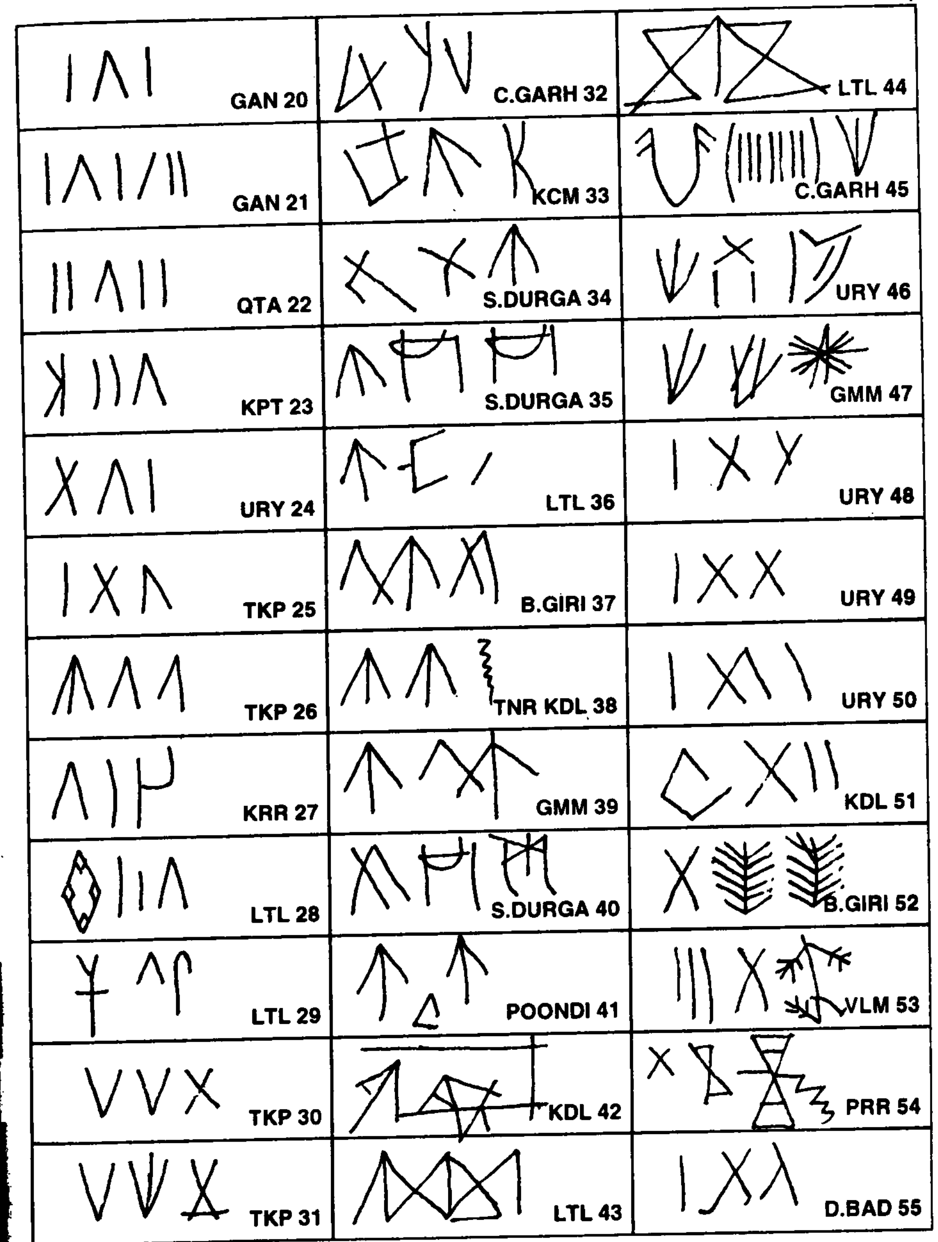


FIGURE : 27

PROMINENT LIGATURED GRAFFITI

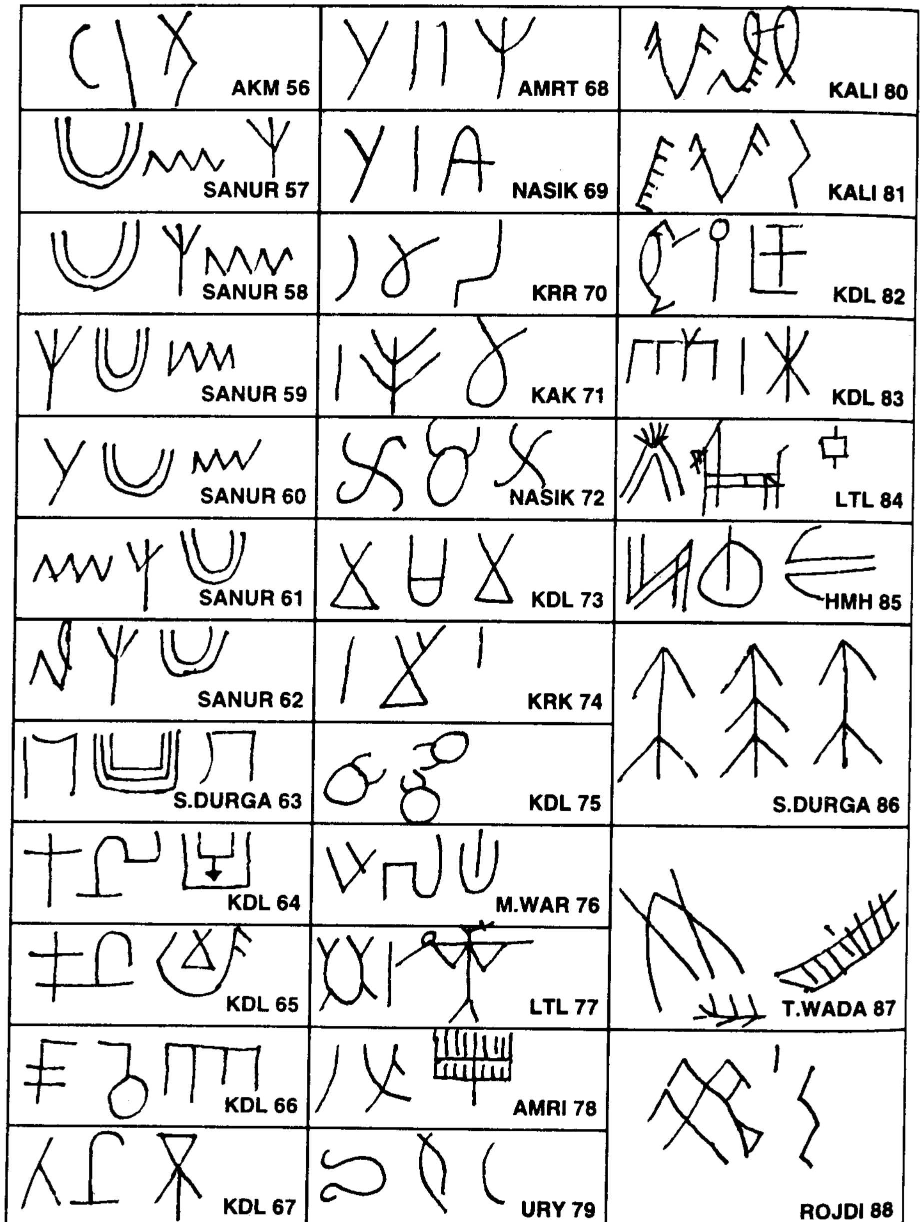


FIGURE : 28

PROMINENT LIGATURED GRAFFITI

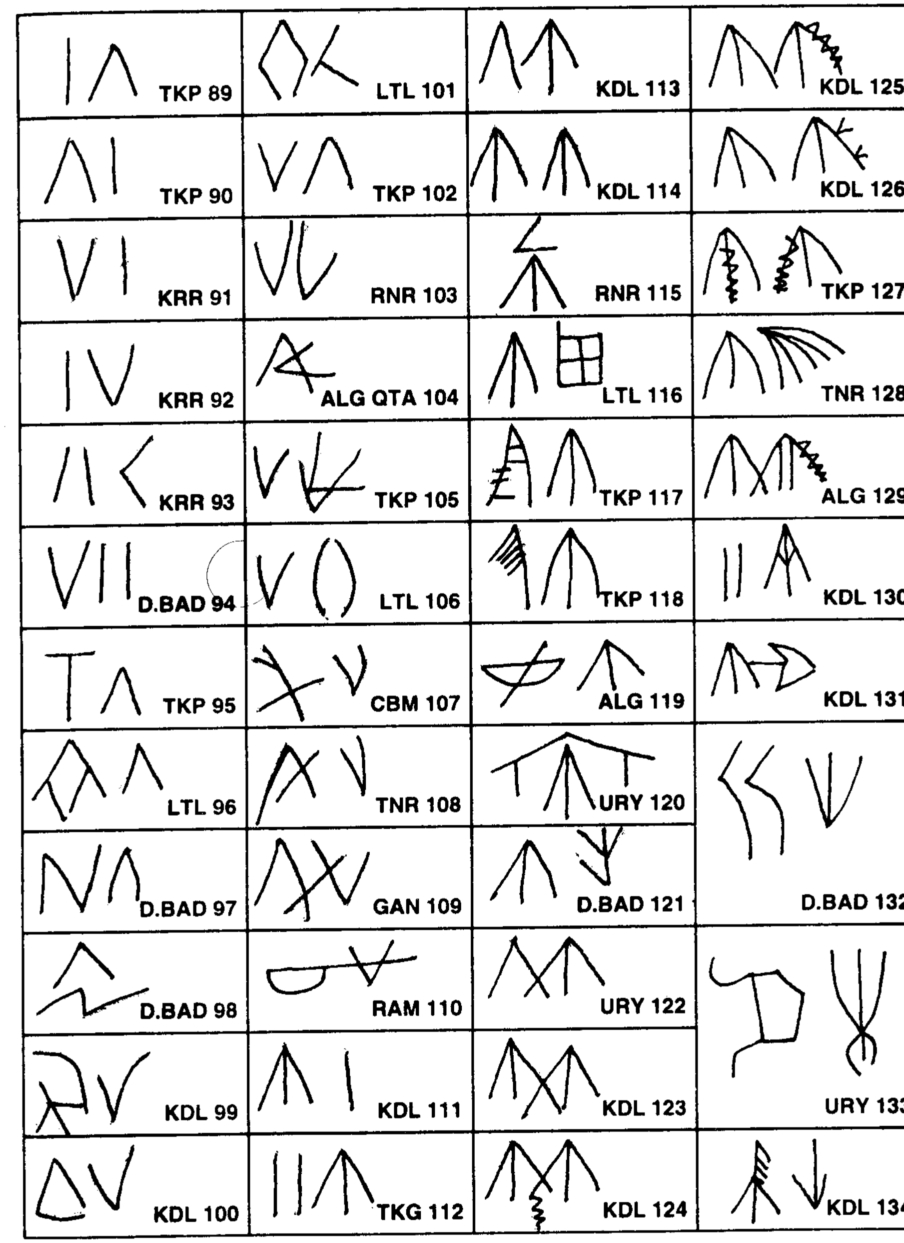


FIGURE : 29

PROMINENT LIGATURED GRAFFITI

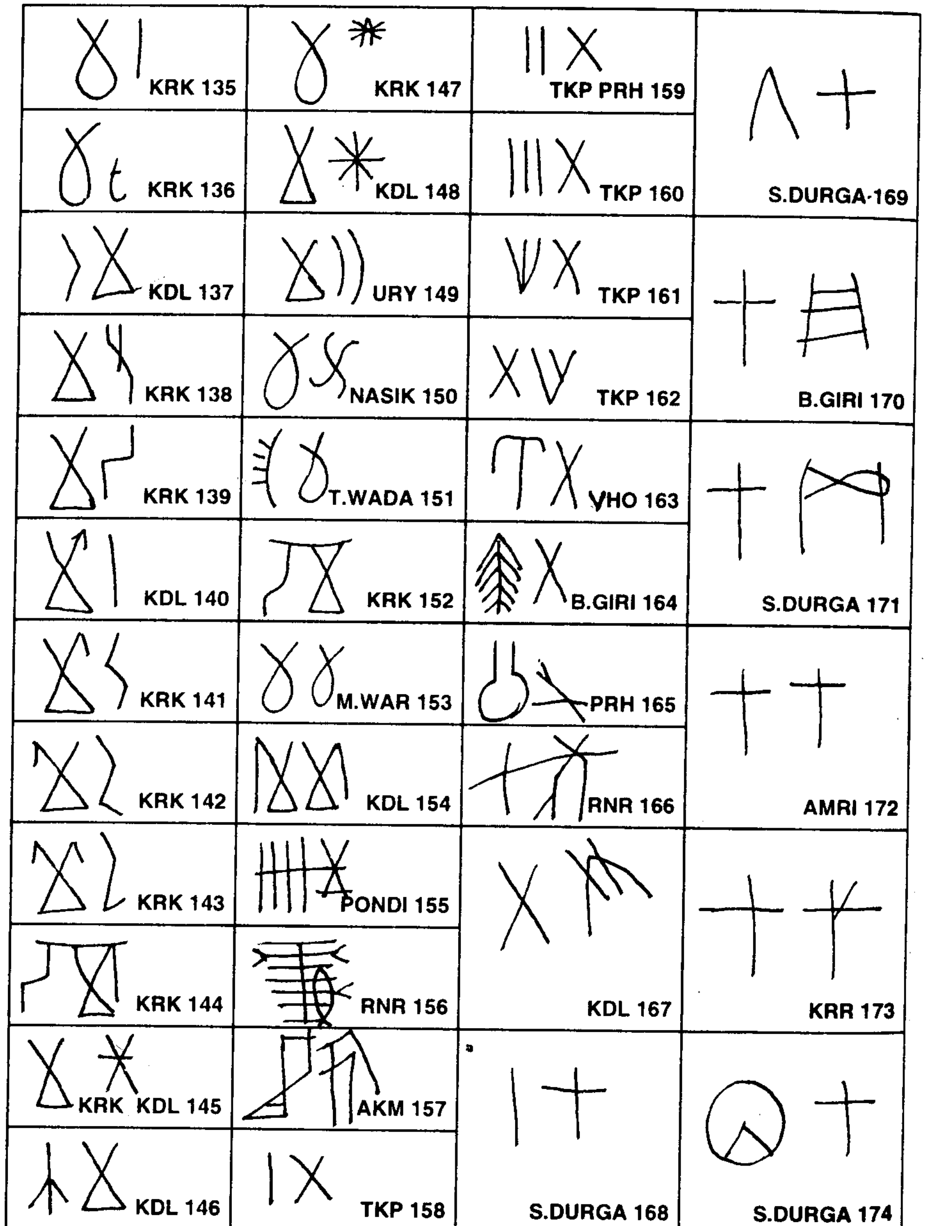


FIGURE : 30

PROMINENT LIGATURED GRAFFITI

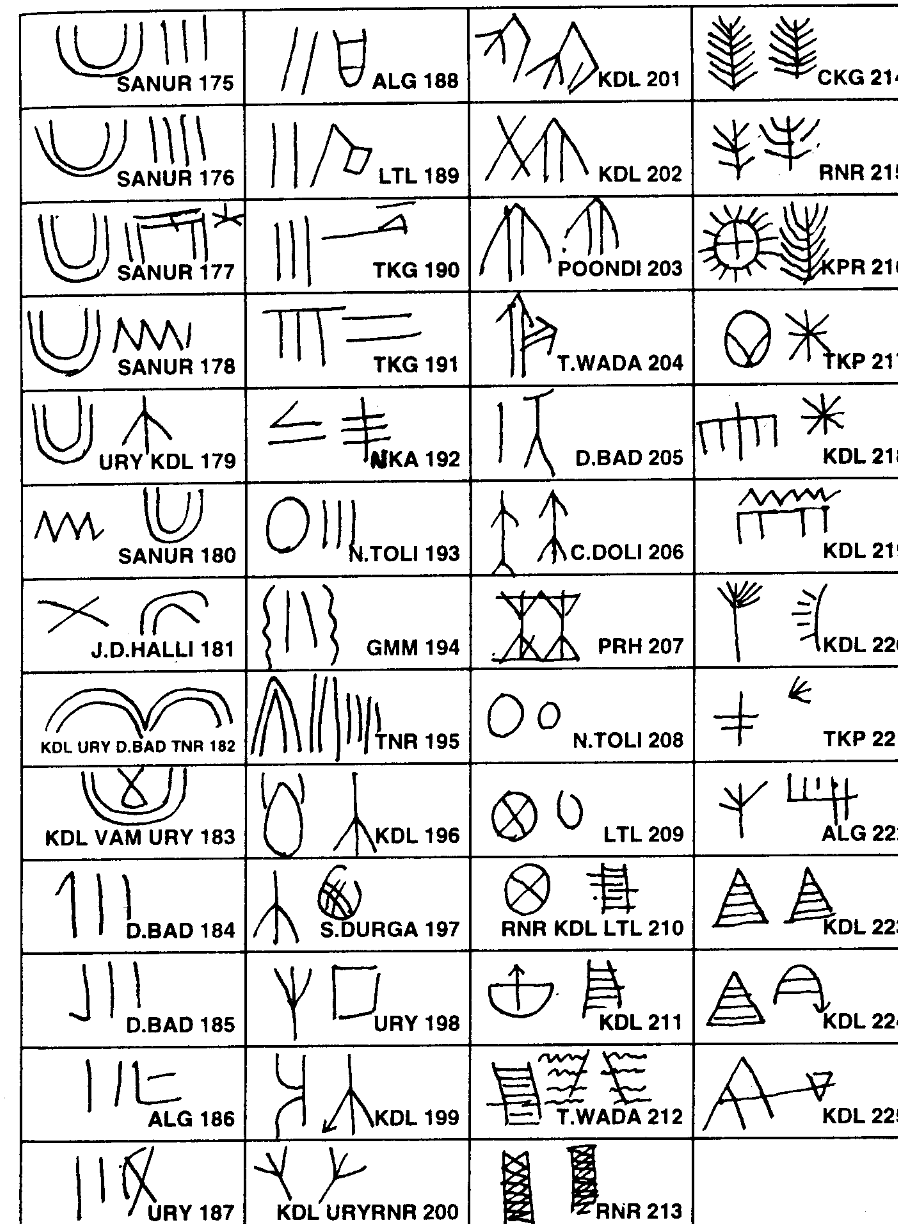


FIGURE : 31

PROMINENT LIGATURED GRAFFITI

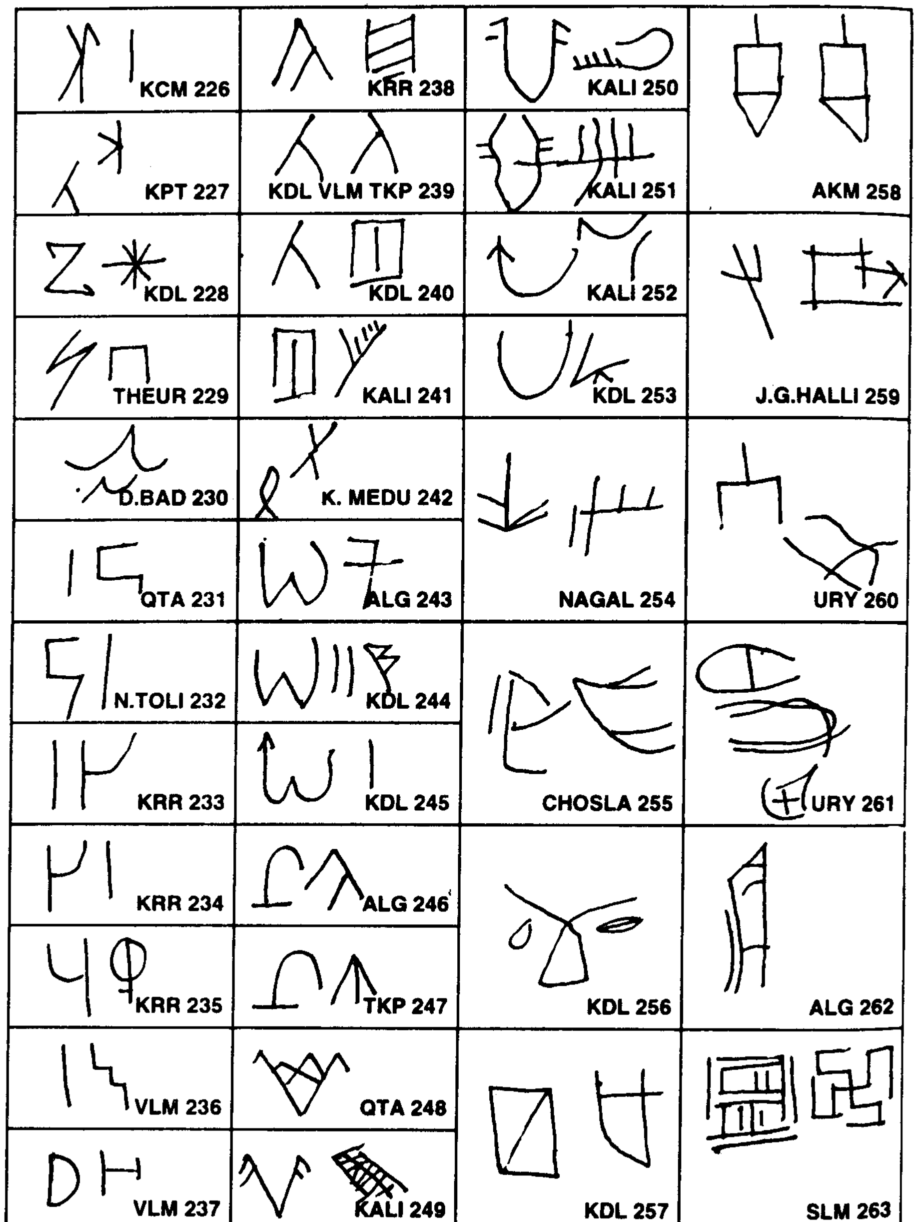


FIGURE : 32

PROMINENT LIGATURED GRAFFITI

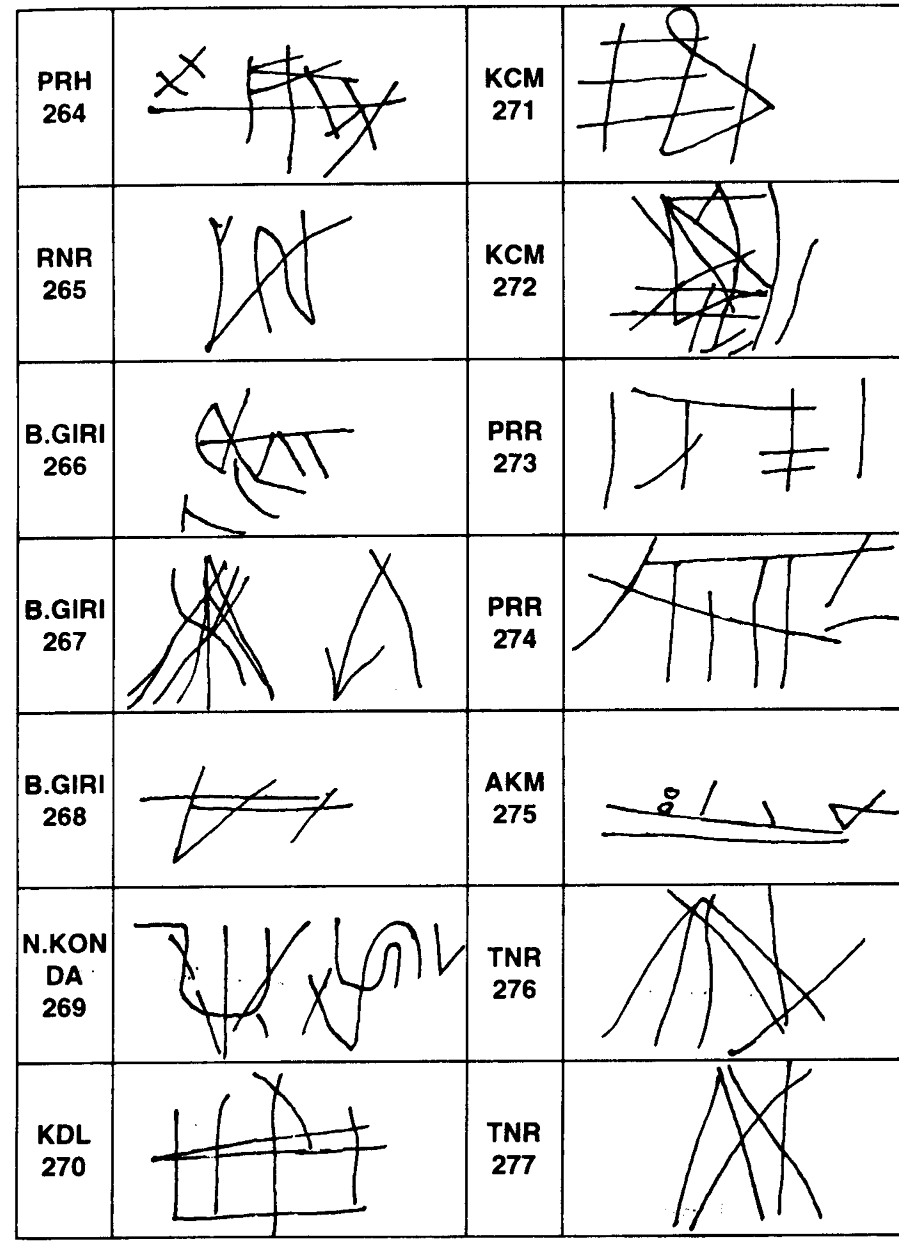


FIGURE : 33

PROMINENT LIGATURED GRAFFITI

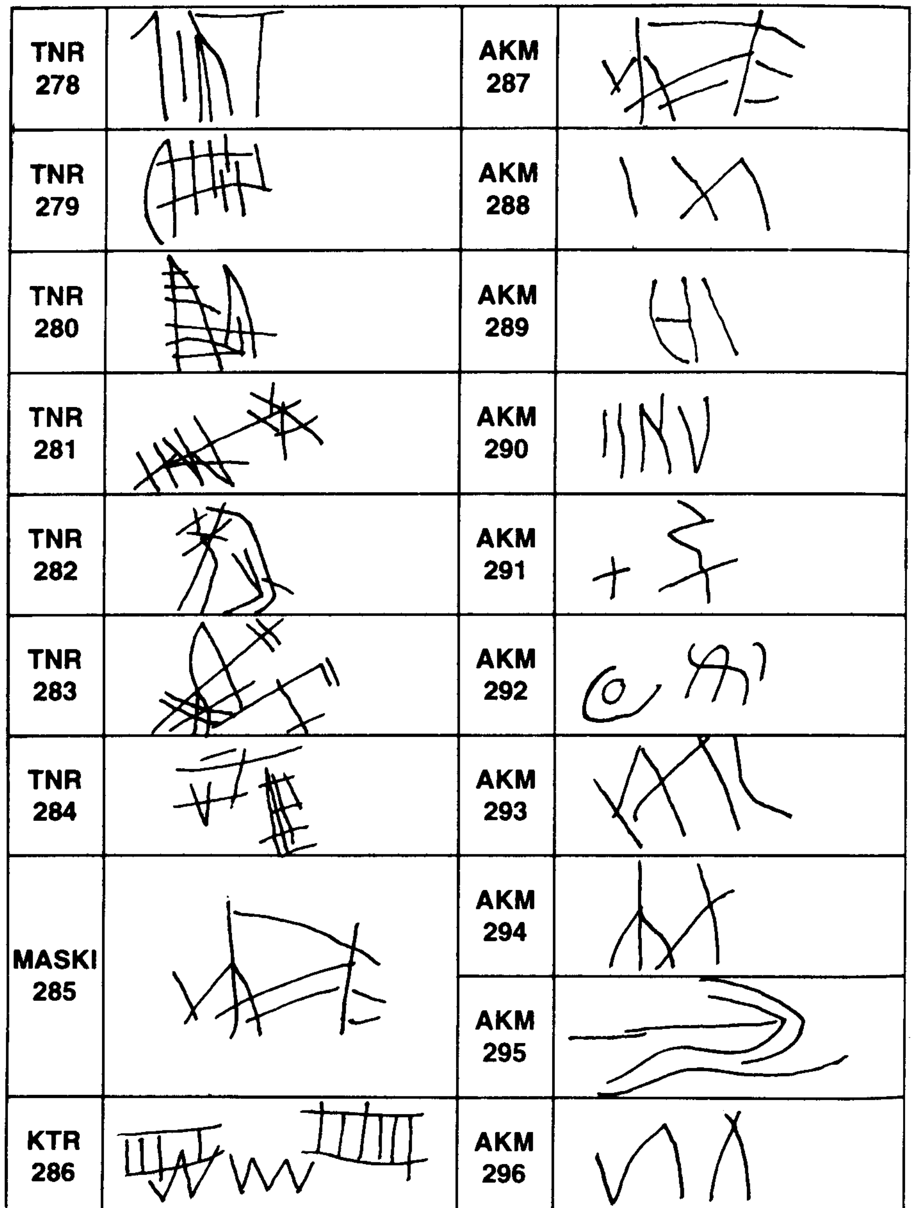


FIGURE : 34

PROMINENT LIGATURED GRAFFITI

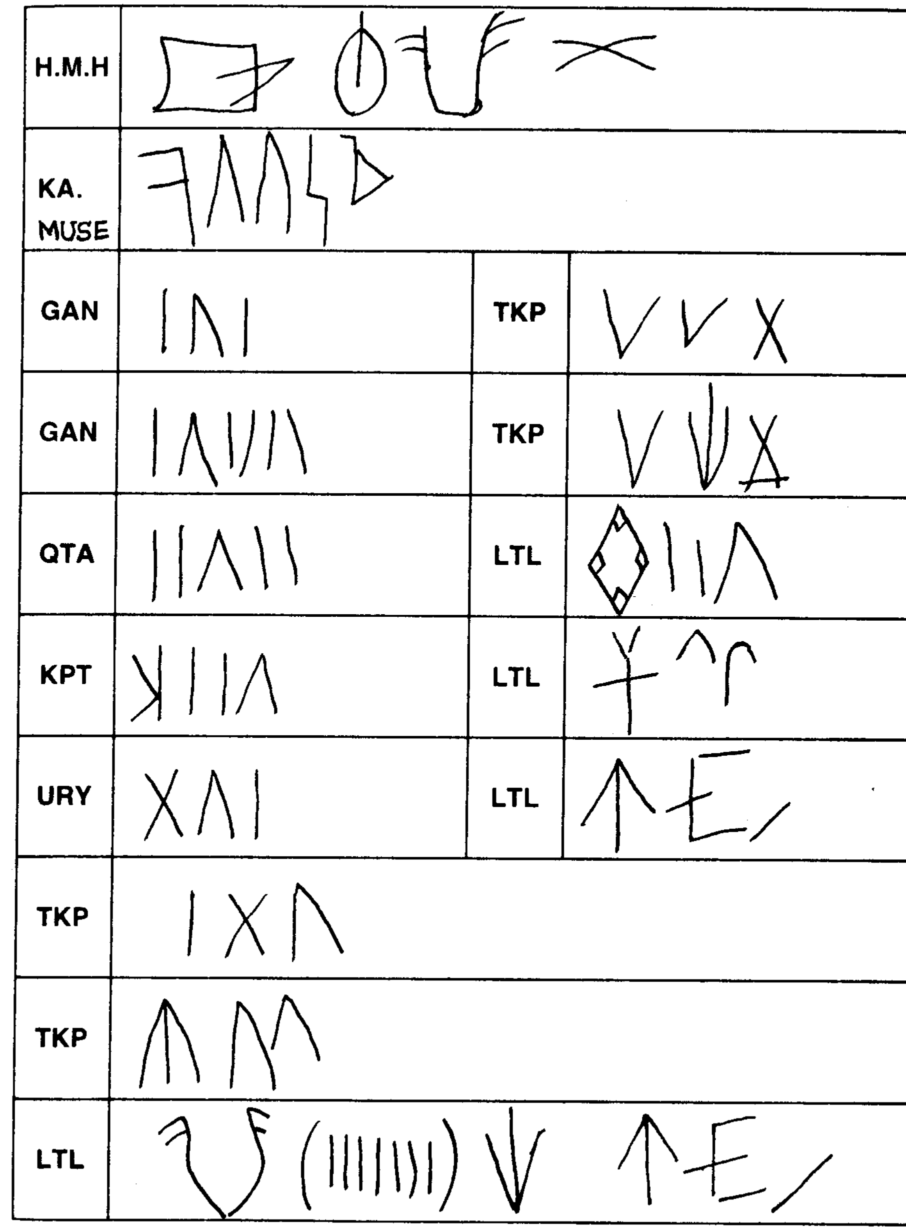


FIGURE : 35

LIGATURED GRAFFITI WITH INDUS SIGNS

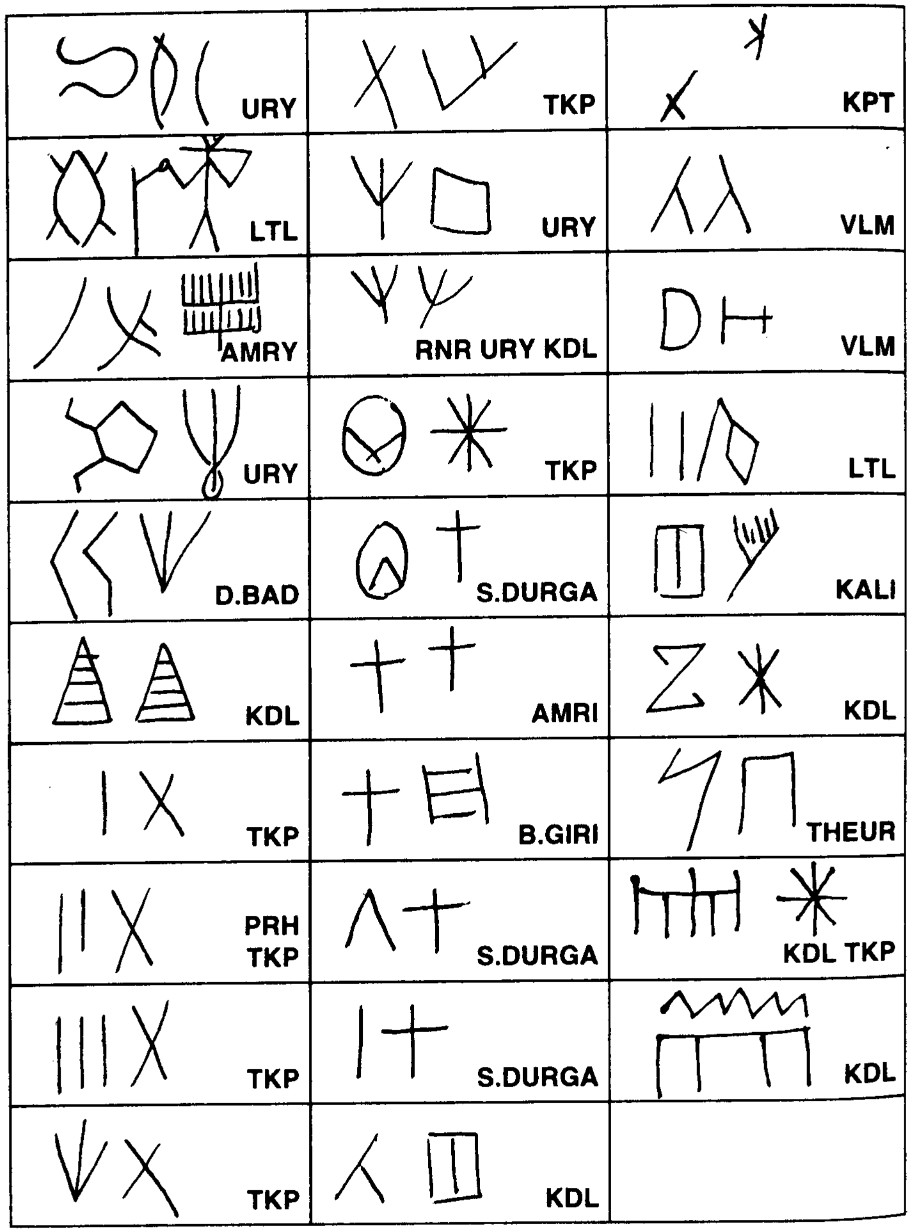


FIGURE : 36

LIGATURED GRAFFITI WITH INDUS SIGNS

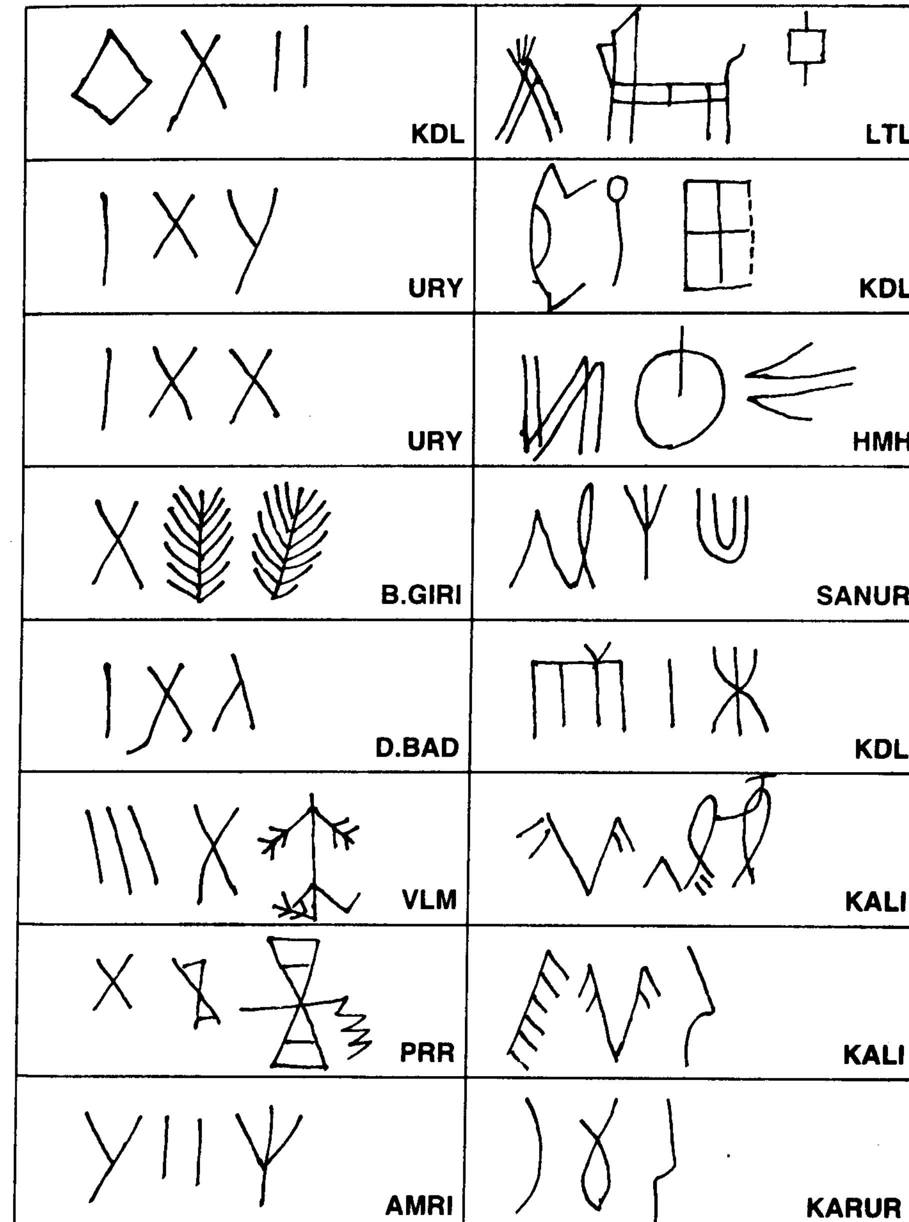


FIGURE : 37

LIGATURED GRAFFITI WITH INDUS SIGNS

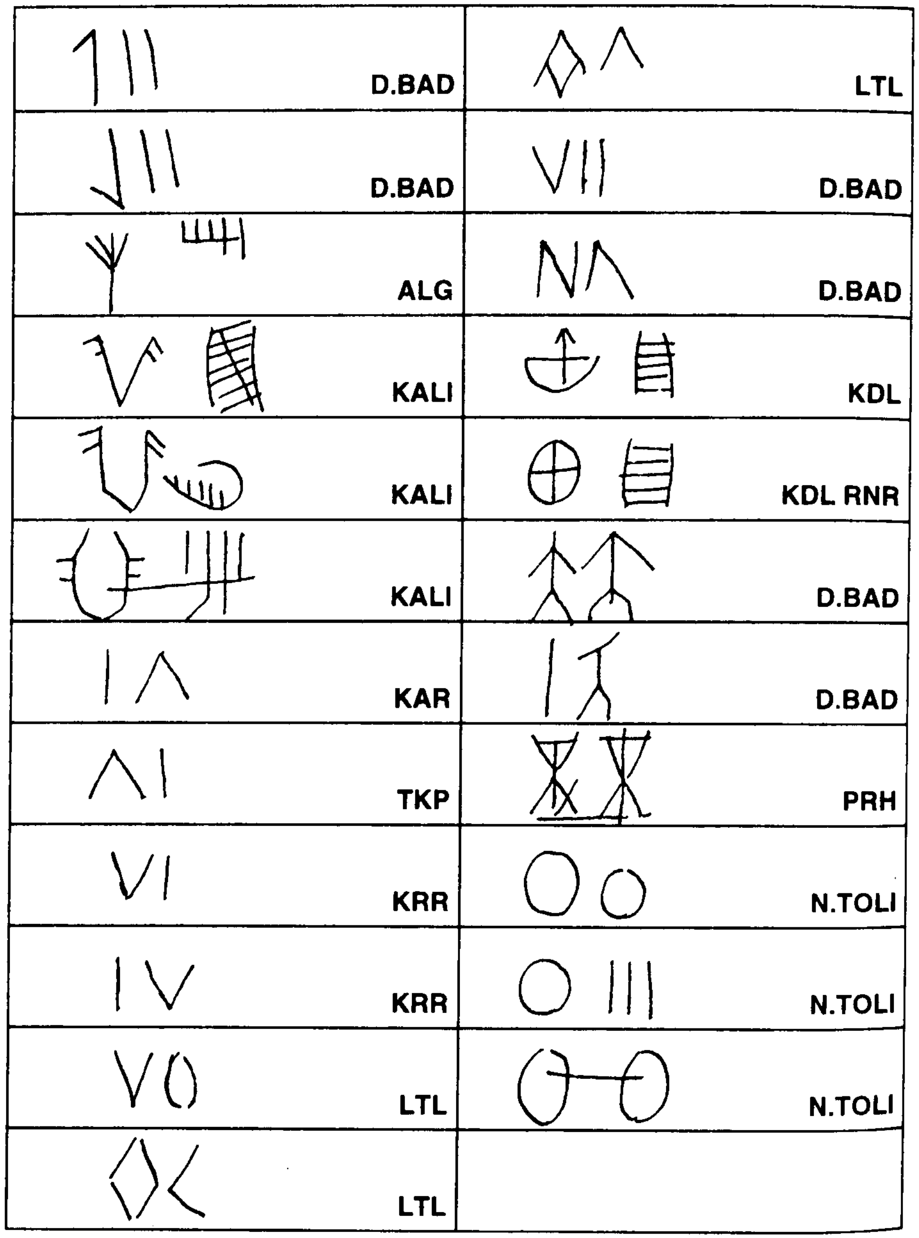
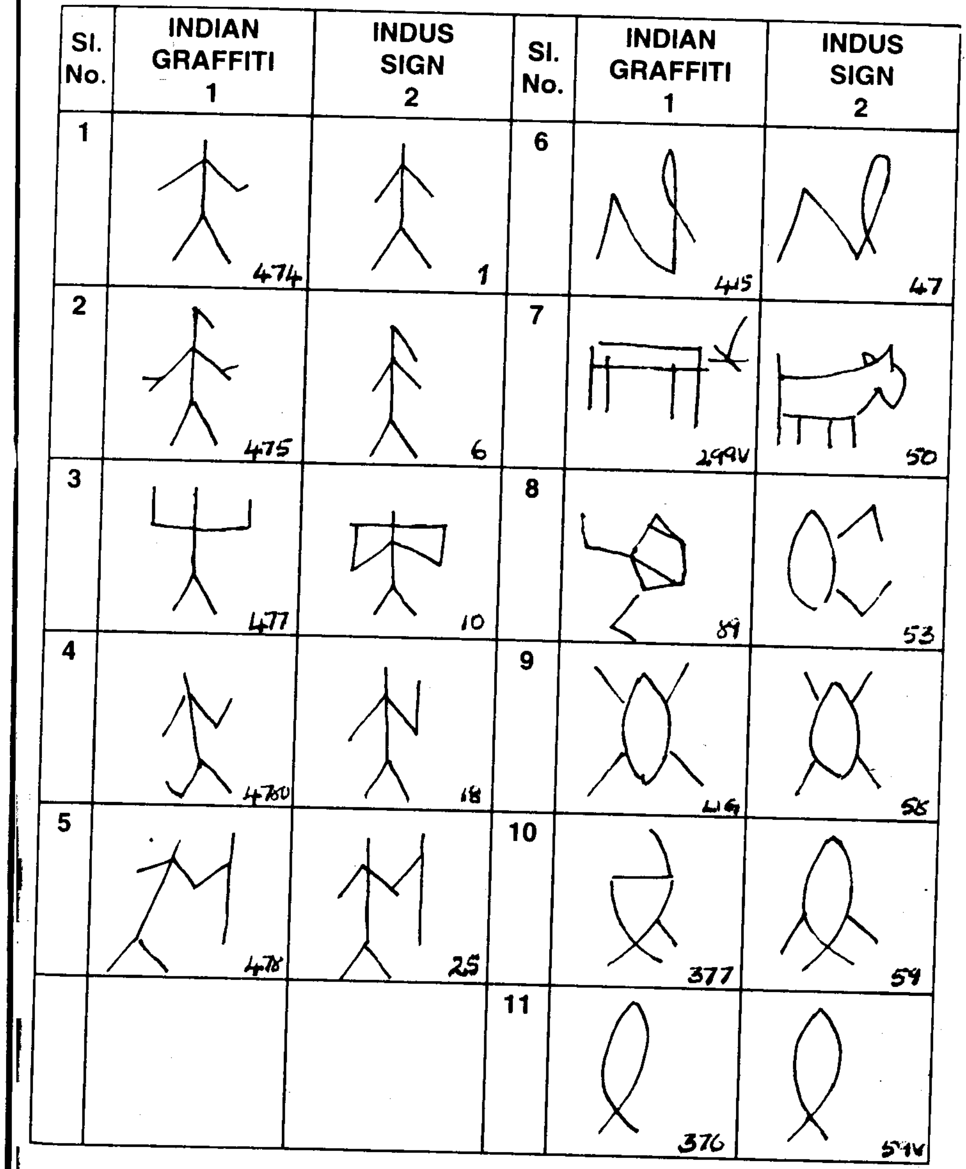


FIGURE : 38

LIGATURED GRAFFITI WITH INDUS SIGNS



THE NUMBERS IN COLUMN 1 INDICATES DISTINCT GRAFFITI NOS.
THE NUMBERS IN COLUMN 2 INDICATES I MAHADEVAN SIGN NOS.

LIG: LIGATURED GRAFFITI
B : BRAHMI LETTER LIKE GRAFFITI
V. VARIANT : P:PAINTED

FIGURE : 39

INDIAN GRAFFITI AND INDUS SIGNS

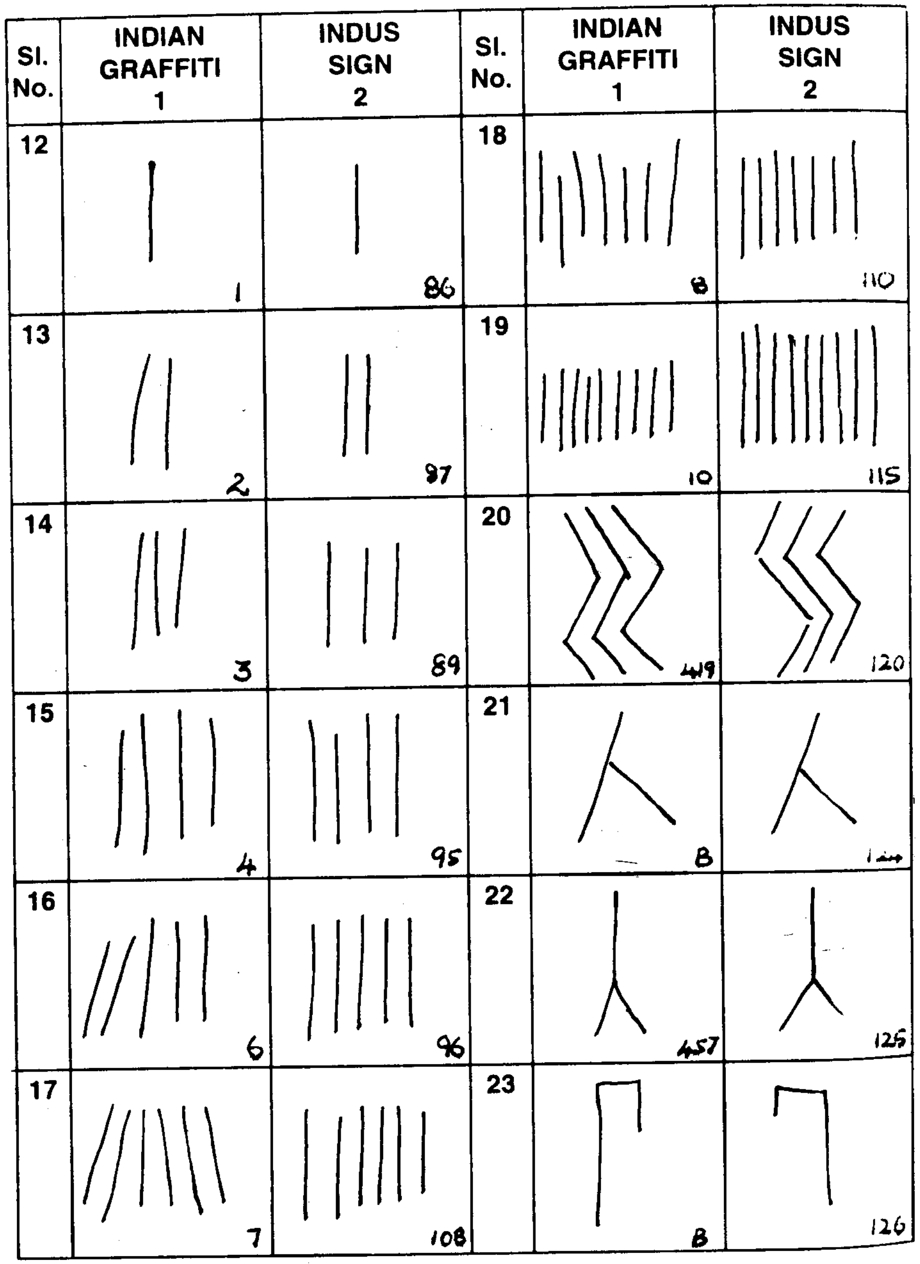


FIGURE : 40

INDIAN GRAFFITI AND INDUS SIGNS

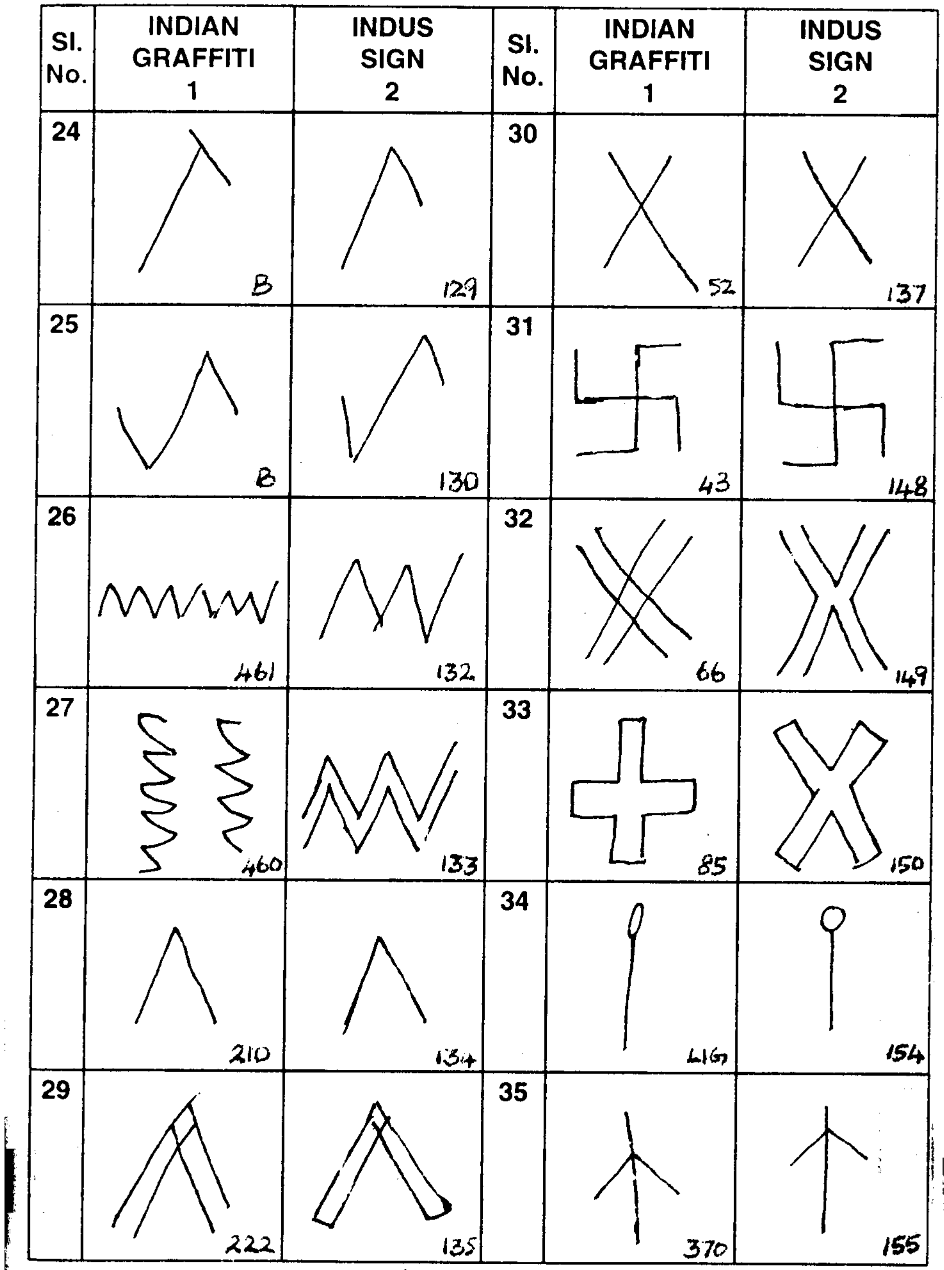


FIGURE : 41

INDIAN GRAFFITI AND INDUS SIGNS

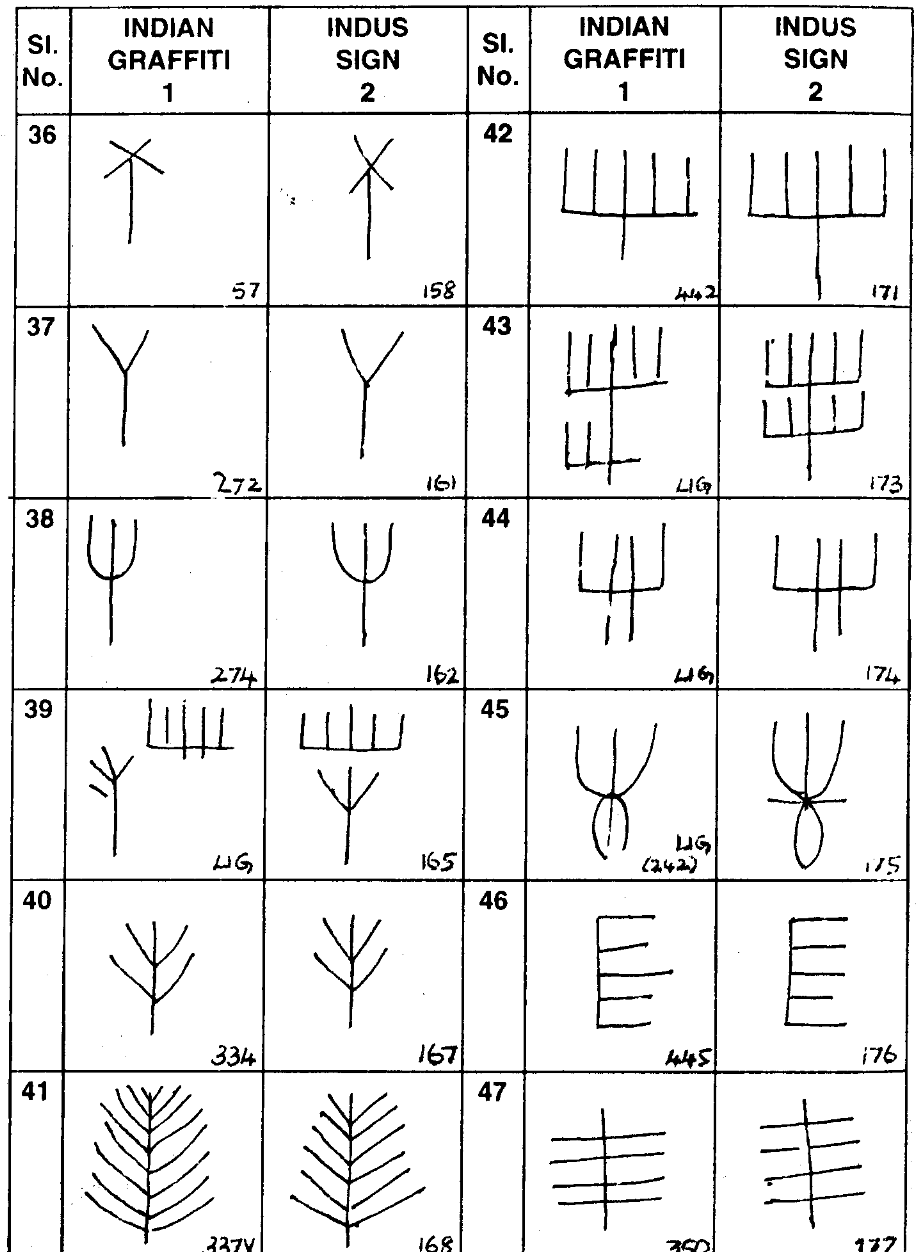


FIGURE : 42

INDIAN GRAFFITI AND INDUS SIGNS

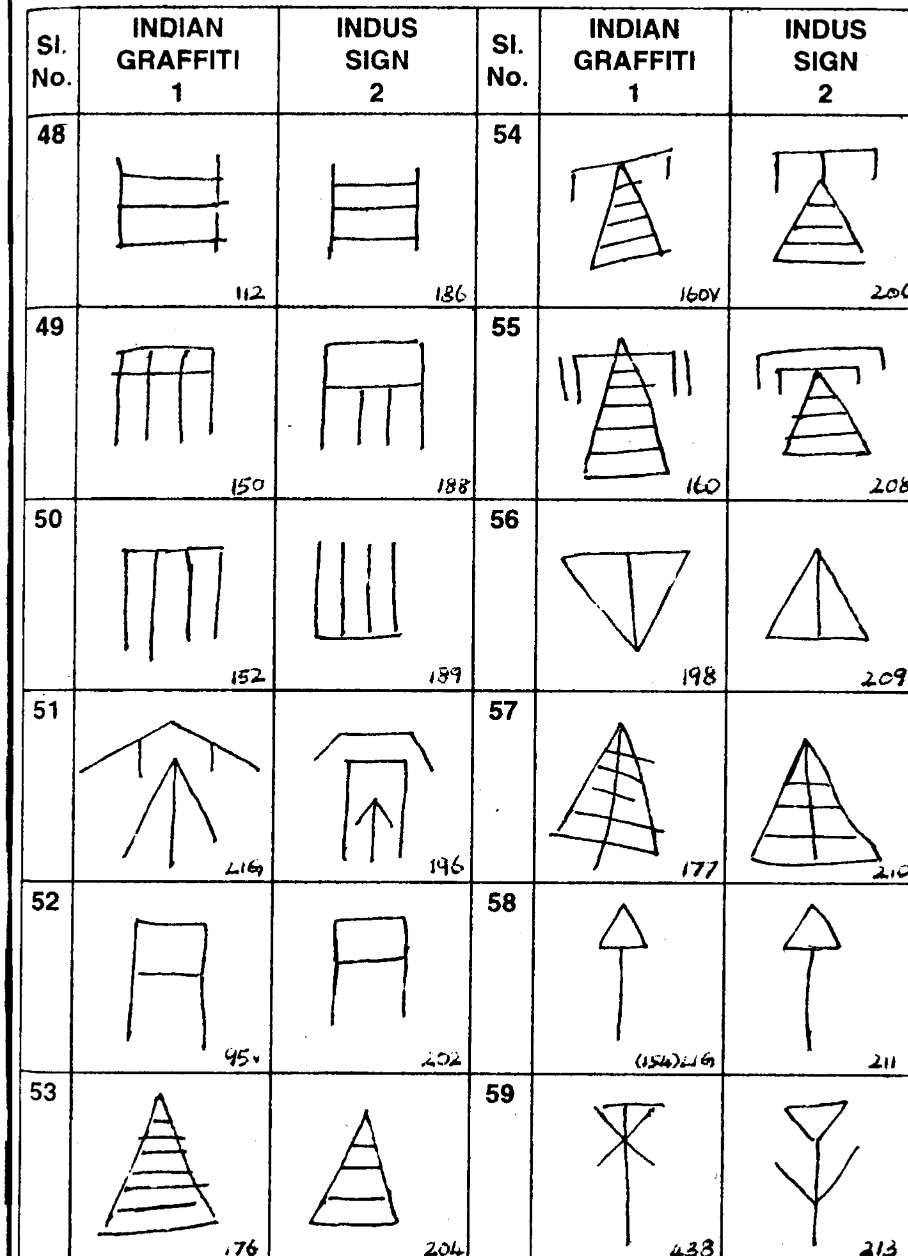


FIGURE : 43

INDIAN GRAFFITI AND INDUS SIGNS

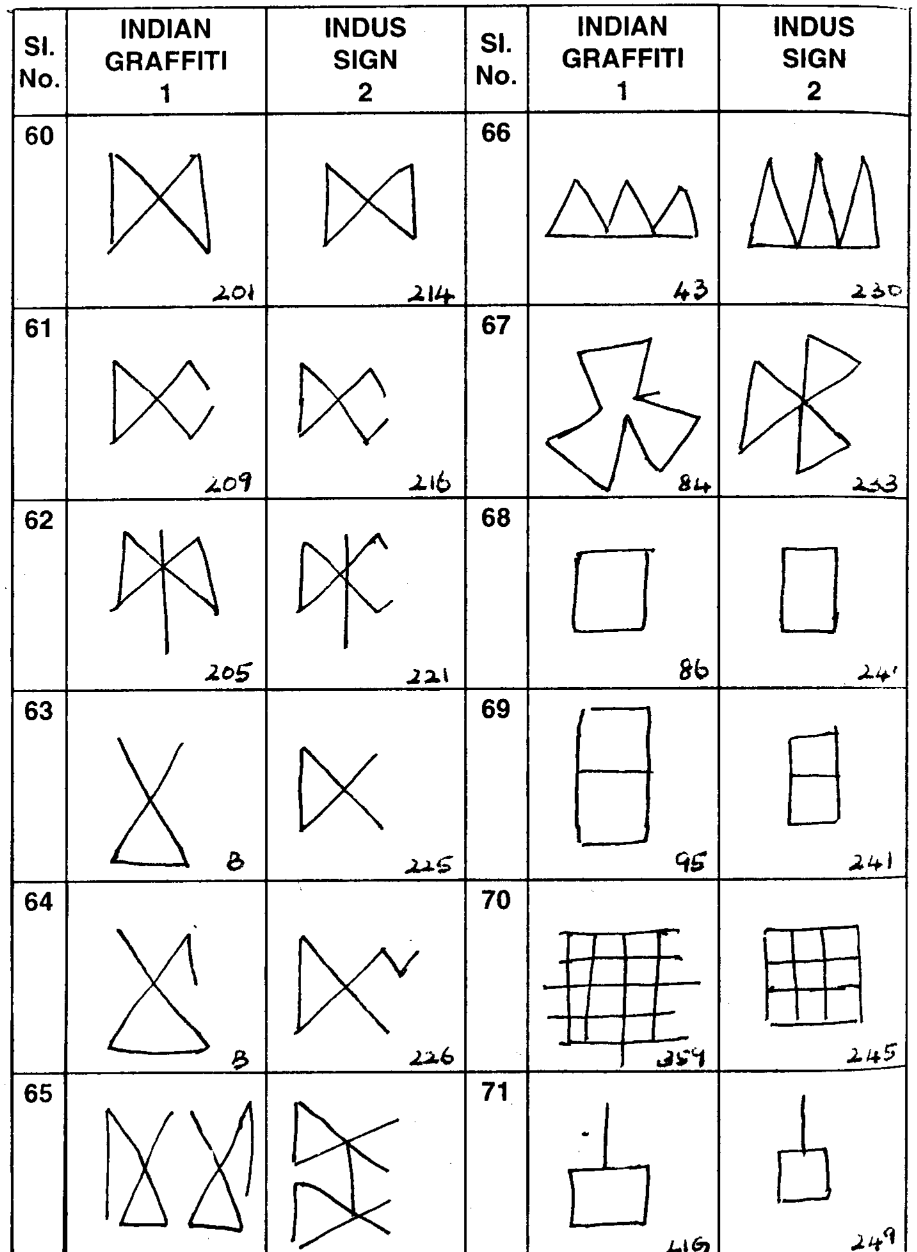


FIGURE : 44

INDIAN GRAFFITI AND INDUS SIGNS

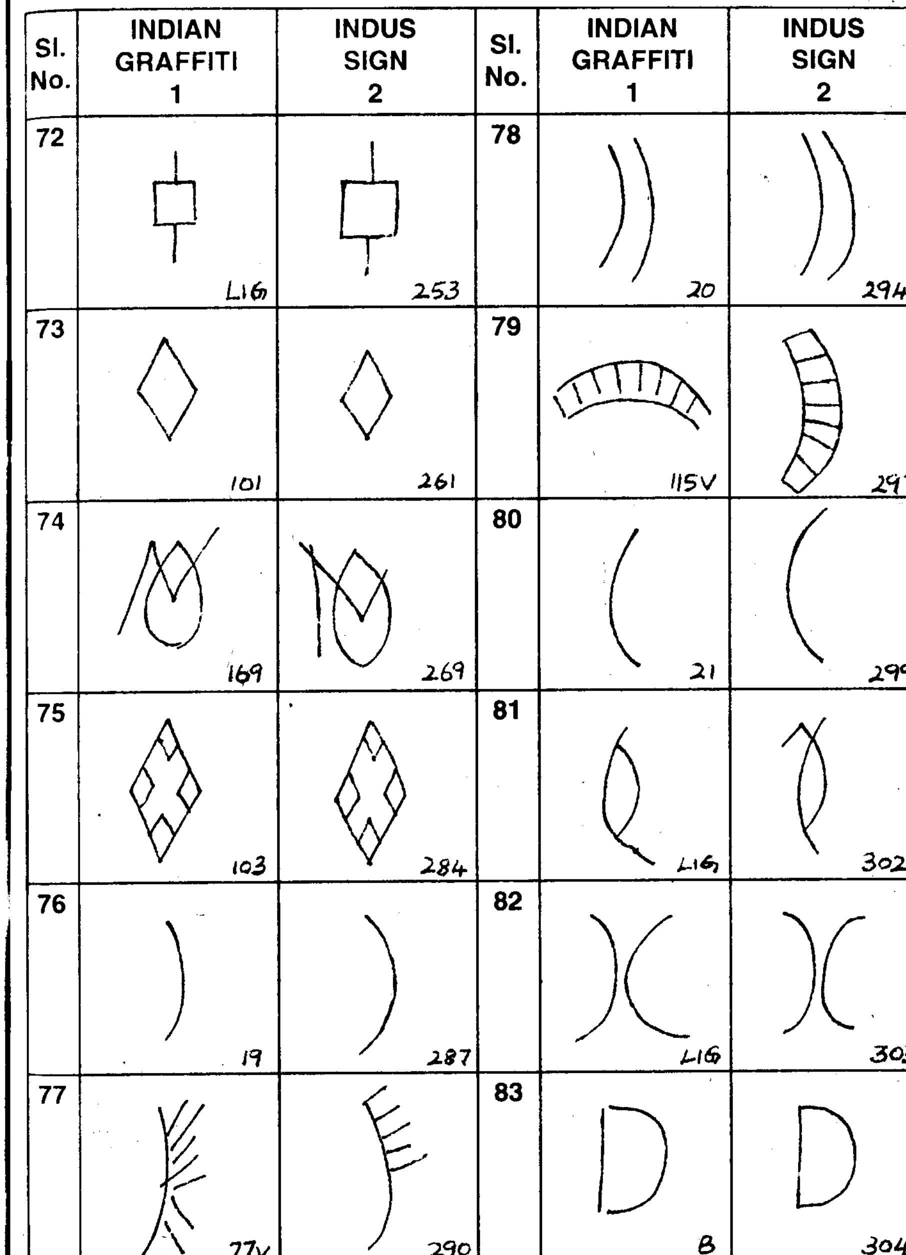
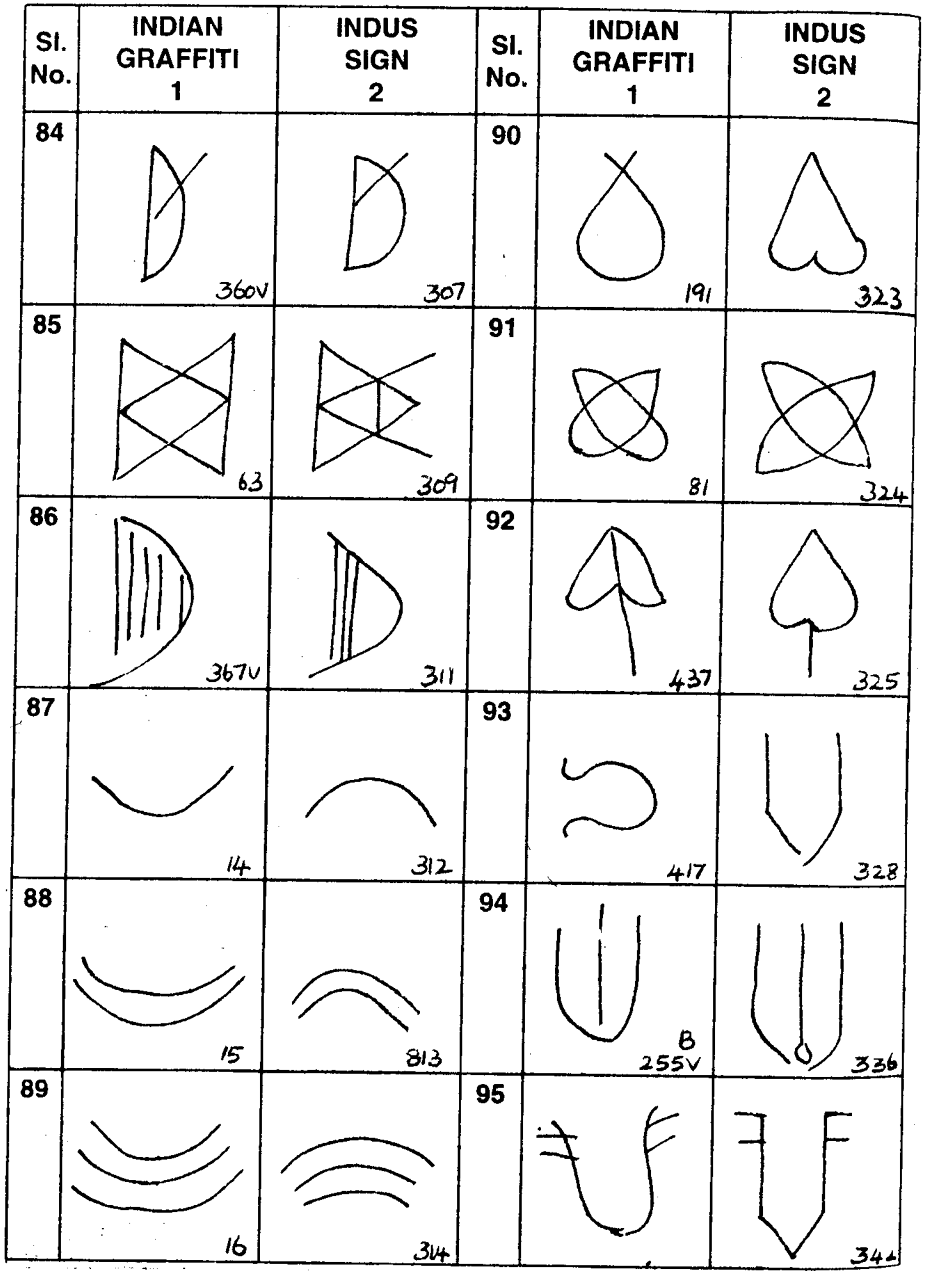


FIGURE : 45

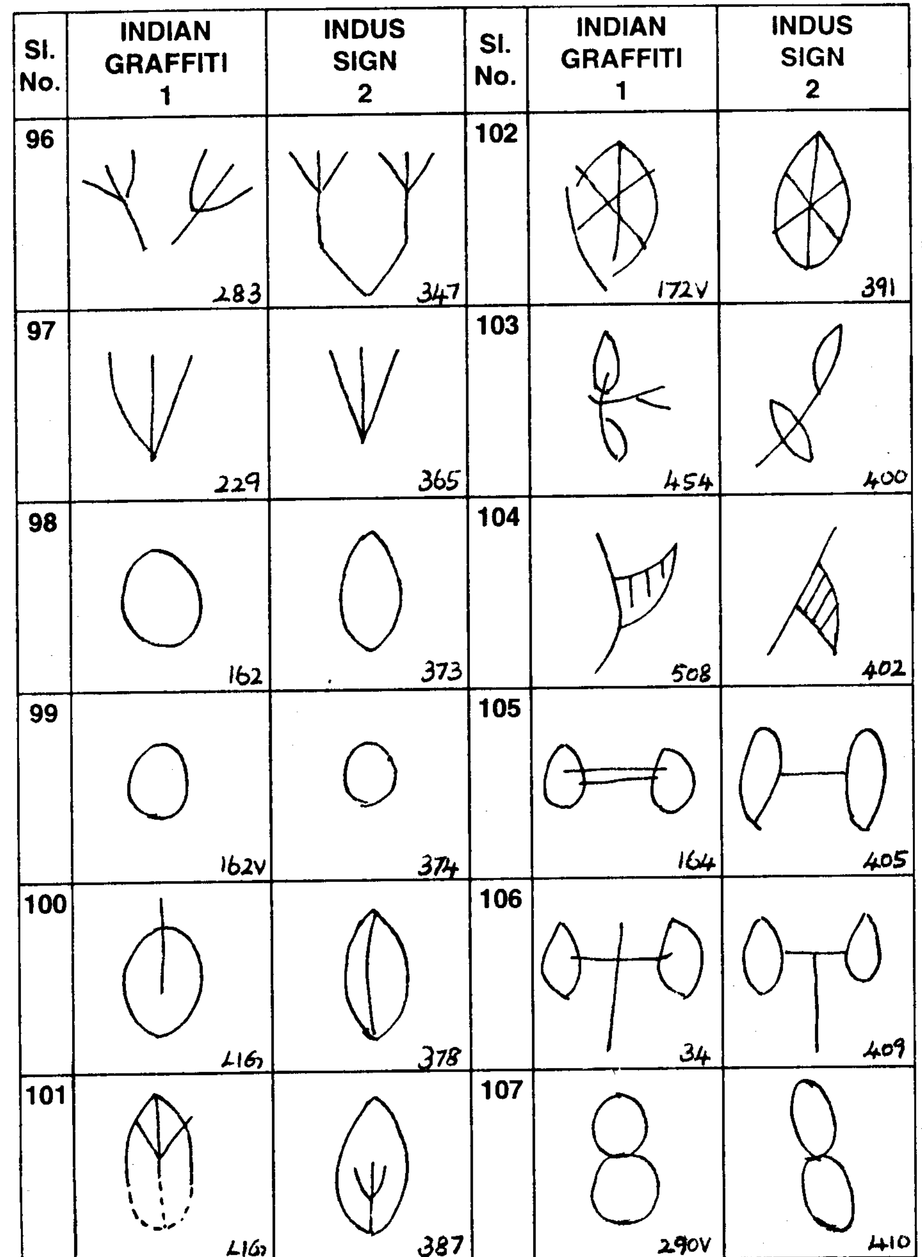
INDIAN GRAFFITI AND INDUS SIGNS



Sl. No.	INDIAN GRAFFITI 1	INDUS SIGN 2	Sl. No.	INDIAN GRAFFITI 1	INDUS SIGN 2
84	360V	307	90	191	323
85	63	309	91	81	324
86	367V	311	92	437	325
87	14	312	93	417	328
88	15	813	94	B 255V	336
89	16	314	95		344

FIGURE : 46

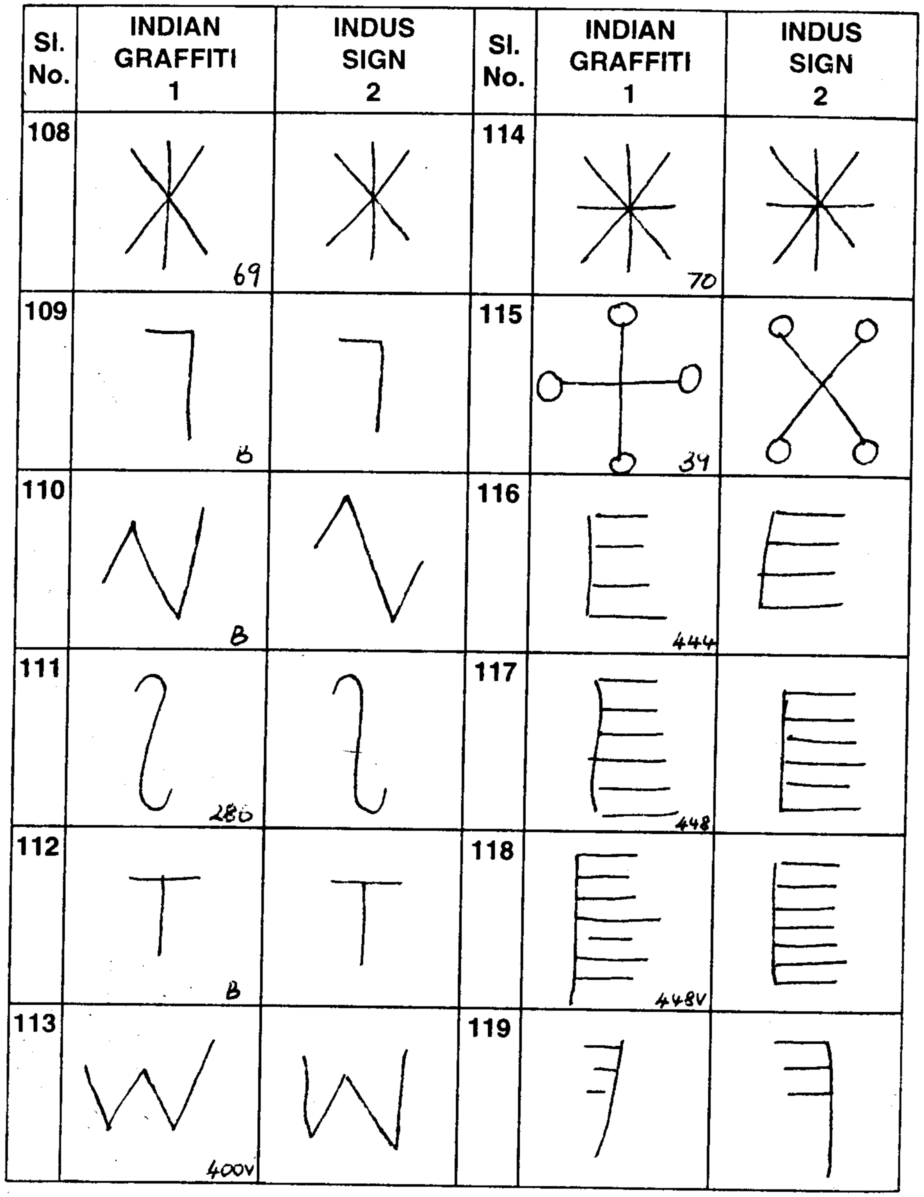
INDIAN GRAFFITI AND INDUS SIGNS



Sl. No.	INDIAN GRAFFITI 1	INDUS SIGN 2	Sl. No.	INDIAN GRAFFITI 1	INDUS SIGN 2
96	283	347	102	172V	391
97	229	365	103	454	400
98	162	373	104	508	402
99	162V	374	105	164	405
100	L16	378	106	34	409
101	L16	387	107	290V	410

FIGURE : 47

INDIAN GRAFFITI AND INDUS SIGNS



* THE UNNUMBERED INDUS SIGNS ARE TAKEN FROM INDUS SEALS.

FIGURE : 48

INDIAN GRAFFITI AND INDUS SIGNS

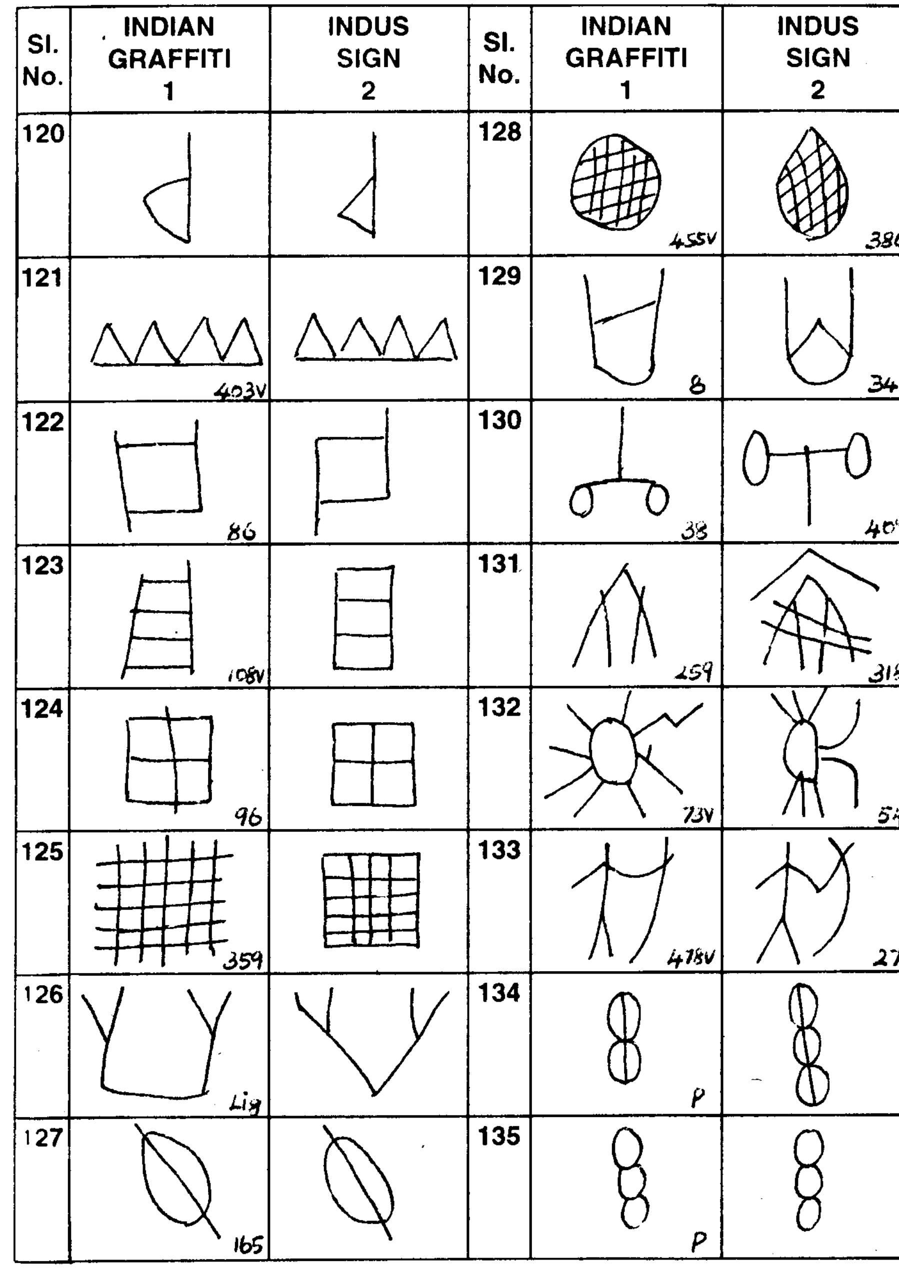


FIGURE : 49

INDIAN GRAFFITI AND INDUS SIGNS

Sl. No.	BRAHMI LETTER LIKE GRAFFITI	CORRES-PONDING BRAHMI LETTER	Sl. No.	BRAHMI LETTER LIKE GRAFFITI	CORRES-PONDING BRAHMI LETTER	Sl. No.	BRAHMI LETTER LIKE GRAFFITI	CORRES-PONDING BRAHMI LETTER
1	KPT	a	13	VPM	Ku	25	KRR	Ja
2	KCM	ā	14	ALG	Ku (variant)	26	KRR	ṭa
3	KRR	i	15	AKM	Ku (reversed)	27	N.TOLI	ṭhā
4	KRK	e	16	TNR	Kā+Ku	28	KRK	ḍa
5	ALG	ū	17	CDA	Kū	29	VLM	ṇa
6	KDL	ō	18	TKP	Kē	30	RNR	na+la
7	PDK	ō+ṇa	19	KDL	Ka+Kā	31	AMRI	nō+tō (Super Imposed)
8	TKP	ō (Struck)	20	VLM	ga	32	KDL	ta
9	ALG	O (variant) or O+ma	21	SLM	Ca	33	URY	ta (reversed)
10	KRR	Ō (variant)	22	NKA	Sa	34	HUNT	ta+ta (Super Imposed)
11	URY	Ka	23	ALG	Sa (reversed)	35	RAM	ta+ya
12	KDL	Kā (variant)	24	HMH	Cha	36	ALG	ta+ṇa (Super Imposed)

FIGURE : 50

INDIAN GRAFFITI AND BRAHMI

Sl. No.	BRAHMI LETTER LIKE GRAFFITI	CORRES-PONDING BRAHMI LETTER	Sl. No.	BRAHMI LETTER LIKE GRAFFITI	CORRES-PONDING BRAHMI LETTER	Sl. No.	BRAHMI LETTER LIKE GRAFFITI	CORRES-PONDING BRAHMI LETTER
37	VPM	ti	49	KRK	mā	61	N.TOLI	Ya
38	RAM	ti	50	KRK	mā or me	62	NUMA	Yi
39	KMEDU	te	51	KRK	mā or mu (upside down)	63	TKP	rā
40	VLM	dha	52	KDL	mā+ya	64	KRR	rai
41	ALG	na (upside down)	53	HUNT	ma+ya	65	AKM	rai (reversed)
42	QTA	ba	54	KDL	ma+ya	66	KRK	Ka+rai
43	ALG	pā or ū	55	HUNT	ma (upside down)	67	LTL	re+rai
44	PRR	ma (upside down)	56	SLM	ma	68	VLM	lu
45	RNR	ma (side ways)	57	KDL	me+pa	69	KDL	Vē
46	KDL	ma	58	RAM	ma+ru (super imposed)	70	KRR	ḷa
47	KDL	ma+ta	59	ULM	Ya	71	TKP	ṇa
48	KDL	ta+ma +ru	60	QTA	Ya	72	KDL	ṇi

FIGURE : 51

INDIAN GRAFFITI AND BRAHMI

Sl.. No.	Indian Graffiti	Chinese	Egyptian	Near East	Greek	Srilankan	Japanese	Sl.. No.	Indian Graffiti	Chinese	Egyptian	Near East	Greek	Srilankan	Japanese
1	|	✓	✓	✓	✓	✓	✓	19	[illegible]		✓			✓	
2	||	✓	✓	✓	✓	✓	✓	20	L	✓	✓	✓	✓	✓	
3	|||	✓	✓			✓	✓	21	⌋		✓			✓	
4	||||	✓					✓	22	⊢	✓					
5	—	✓	✓			✓	✓	23	7		✓			✓	
6	=	✓				✓	✓	24	(		✓			✓	✓
7	≡	✓				✓	✓	25	⟨	✓	✓				
8	T	✓	✓	✓	✓	✓	✓	26	[illegible]	✓					
9	Π		✓	✓			✓	27	[illegible]	✓	✓	✓			
10	[illegible]			✓			✓	28	N			✓	✓		
11	+	✓	✓	✓	✓	✓	✓	29	И				✓		
12	[illegible]		✓					30	Λ	✓	✓		✓		✓
13	[illegible]	✓	✓		✓	✓		31	V	✓	✓		✓		✓
14	I		✓		✓	✓		32	A		✓		✓		
15	⊢⊣		✓				✓	33	[illegible]		✓		✓		
16	[illegible]		✓					34	K		✓		✓		
17	[illegible]		✓					35	△	✓			✓		
18	[illegible]		✓				✓	36	▽				✓		

FIGURE : 52

INDIAN GRAFFITI AND FOREIGN GRAFFITI

THE ✓ MARK INDICATES THE AVAILABILITY OF SIMILAR GRAFFITI

Sl.. No.	Indian Graffiti	Chinese	Egyptian	Near East	Greek	Srilankan	Japanese	Sl.. No.	Indian Graffiti	Chinese	Egyptian	Near East	Greek	Srilankan	Japanese
37	ΔΔ	✓			✓	✓		55	X	✓	✓		✓	✓	✓
38	[illegible]		✓					56	[illegible]	✓		✓		✓	✓
39	[illegible]					✓		57	[illegible]		✓				
40	[illegible]		✓			✓		58	[illegible]	✓					
41	[illegible]		✓					59	卐	✓				✓	
42	[illegible]		✓			✓		60	[illegible]				✓		
43	[illegible]		✓					61	[illegible]		✓	✓	✓		✓
44	[illegible]					✓		62	→		✓	✓			✓
45	[illegible]		✓					63	[illegible]		✓	✓			✓
46	⊔		✓			✓		64	[illegible]		✓				
47	⊓	✓	✓		✓	✓		65	[illegible]			✓			
48	[illegible]	✓	✓		✓			66	[illegible]		✓	✓			
49	□	✓	✓	✓	✓	✓		67	[illegible]		✓	✓			
50	[illegible]		✓		✓			68	[illegible]		✓	✓			
51	⊞		✓		✓	✓		69	[illegible]		✓				✓
52	[illegible]		✓					70	[illegible]		✓				✓
53	[illegible]		✓					71	[illegible]		✓				✓
54	[illegible]							72	[illegible]		✓			✓	

FIGURE : 53

INDIAN GRAFFITI AND FOREIGN GRAFFITI

Sl.. No.	Indian Graffiti	Chinese	Egyptian	Near East	Greek	Srilankan	Japanese	Sl.. No.	Indian Graffiti	Chinese	Egyptian	Near East	Greek	Srilankan	Japanese
73			✓					91		✓	✓		✓	✓	✓
74			✓		✓	✓		92			✓				✓
75			✓			✓		93			✓				
76			✓					94		✓	✓		✓	✓	
77			✓			✓		95			✓				
78			✓	✓		✓		96		✓	✓		✓		
79			✓			✓		97		✓	✓		✓		
80			✓			✓		98			✓			✓	
81			✓			✓		99			✓			✓	
82			✓		✓	✓		100			✓				
83			✓		✓	✓		101			✓				
84				✓				102			✓				
85			✓			✓		103			✓			✓	✓
86						✓	✓	104			✓				✓
87						✓		105			✓				
88			✓			✓		106		✓			✓	✓	
89			✓			✓		107					✓	✓	
90						✓		108						✓	

FIGURE : 54

INDIAN GRAFFITI AND FOREIGN GRAFFITI

Sl.. No.	Indian Graffiti	Chinese	Egyptian	Near East	Greek	Srilankan	Japanese	Sl.. No.	Indian Graffiti	Chinese	Egyptian	Near East	Greek	Srilankan	Japanese
109						✓		127		✓			✓		
110			✓		✓			128					✓		
111		✓						129							
112		✓						130						✓	
113			✓			✓		131						✓	
114			✓			✓	✓	132			✓			✓	
115			✓					133						✓	
116			✓					134						✓	
117			✓				✓	135						✓	
118			✓	✓		✓		136						✓	
119			✓			✓		137						✓	
120			✓					138						✓	
121						✓	✓	139		✓				✓	
122			✓					140			✓			✓	
123		✓	✓		✓	✓		141		✓	✓	✓	✓	✓	✓
124		✓	✓		✓			142			✓				
125			✓					143			✓				
126			✓		✓			144							✓

FIGURE : 55

INDIAN GRAFFITI AND FOREIGN GRAFFITI

Sl. No.	INDIAN GRAFFITI	PUNCH MARKED COIN SYMBOLS	Sl. No.	INDIAN GRAFFITI	PUNCH MARKED COIN SYMBOLS
1	3		10	69	
2	14V		11	479	
3	14		12	70	
4	15		13	162	
5	156		14	B	
6	432		15	Lig	
7	8		16	170	
8	39		17	172	
9	39v		18	73	

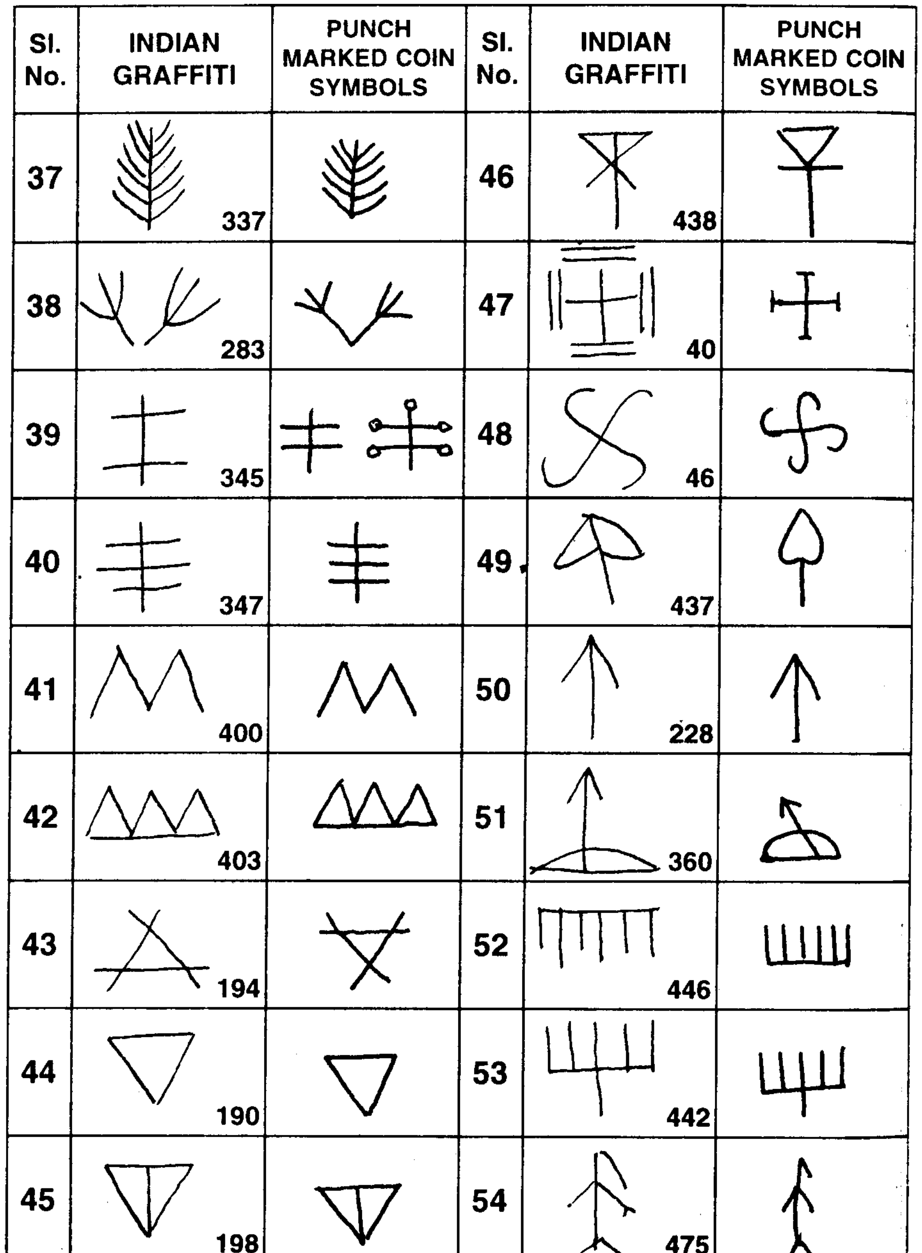
FIGURE : 56

INDIAN GRAFFITI & PUNCH MARKED COIN SYMBOLS

Sl. No.	28INDIAN GRAFFITI	PUNCH MARKED COIN SYMBOLS	Sl. No.	INDIAN GRAFFITI	PUNCH MARKED COIN SYMBOLS
19	79		28	107	
20	85		29	103	
21	123		30	343	
22	86		31	459	
23	97		32	286	
24	112		33	275	
25	95		34	274	
26	94		35	334	
27	359v		36	335	

FIGURE : 57

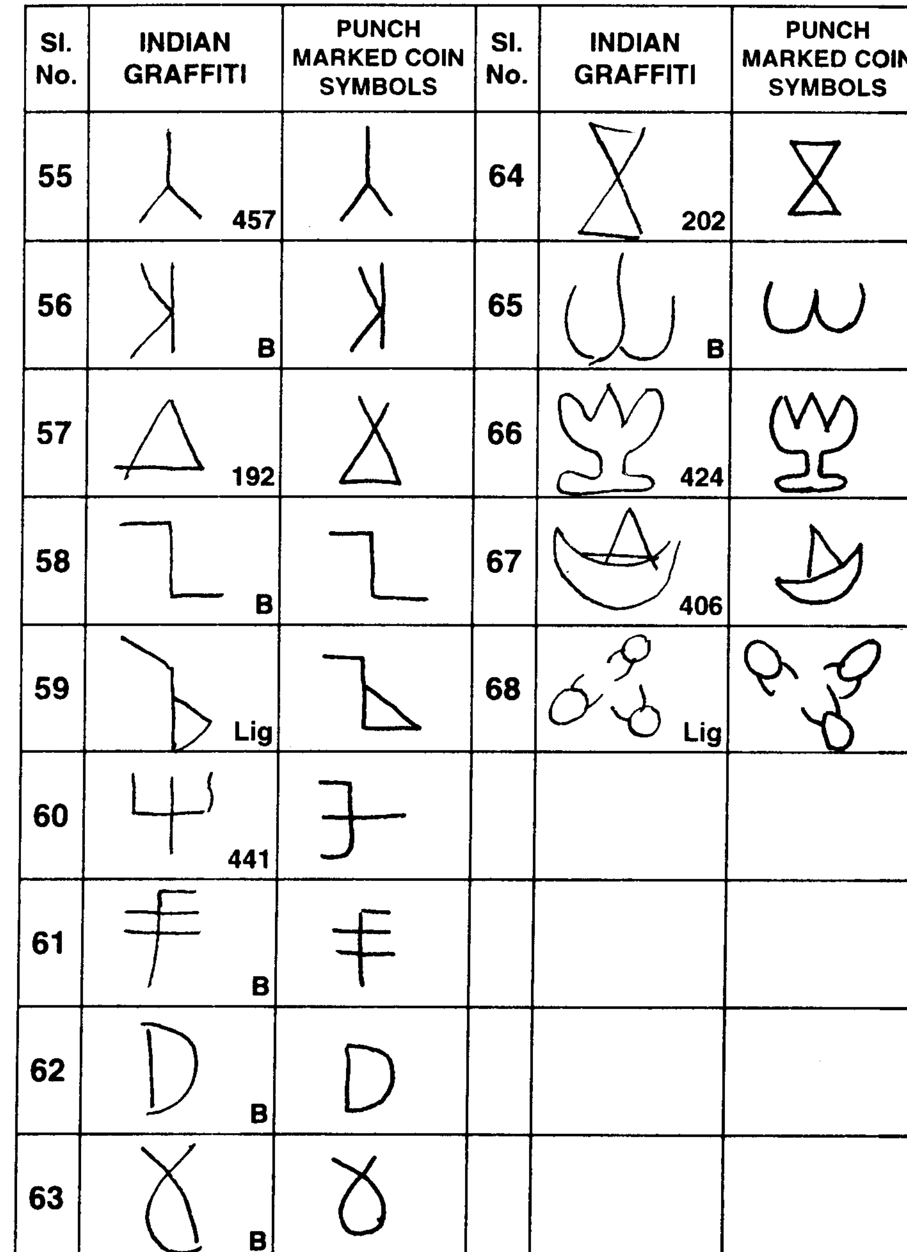
INDIAN GRAFFITI & PUNCH MARKED COIN SYMBOLS



Sl. No.	INDIAN GRAFFITI	PUNCH MARKED COIN SYMBOLS	Sl. No.	INDIAN GRAFFITI	PUNCH MARKED COIN SYMBOLS
37	337		46	438	
38	283		47	40	
39	345		48	46	
40	347		49	437	
41	400		50	228	
42	403		51	360	
43	194		52	446	
44	190		53	442	
45	198		54	475	

FIGURE : 58

INDIAN GRAFFITI & PUNCH MARKED COIN SYMBOLS



Sl. No.	INDIAN GRAFFITI	PUNCH MARKED COIN SYMBOLS	Sl. No.	INDIAN GRAFFITI	PUNCH MARKED COIN SYMBOLS
55	457		64	202	
56	B		65	B	
57	192		66	424	
58	B		67	406	
59	Lig		68	Lig	
60	441				
61	B				
62	B				
63	B				

FIGURE : 59

INDIAN GRAFFITI & PUNCH MARKED COIN SYMBOLS

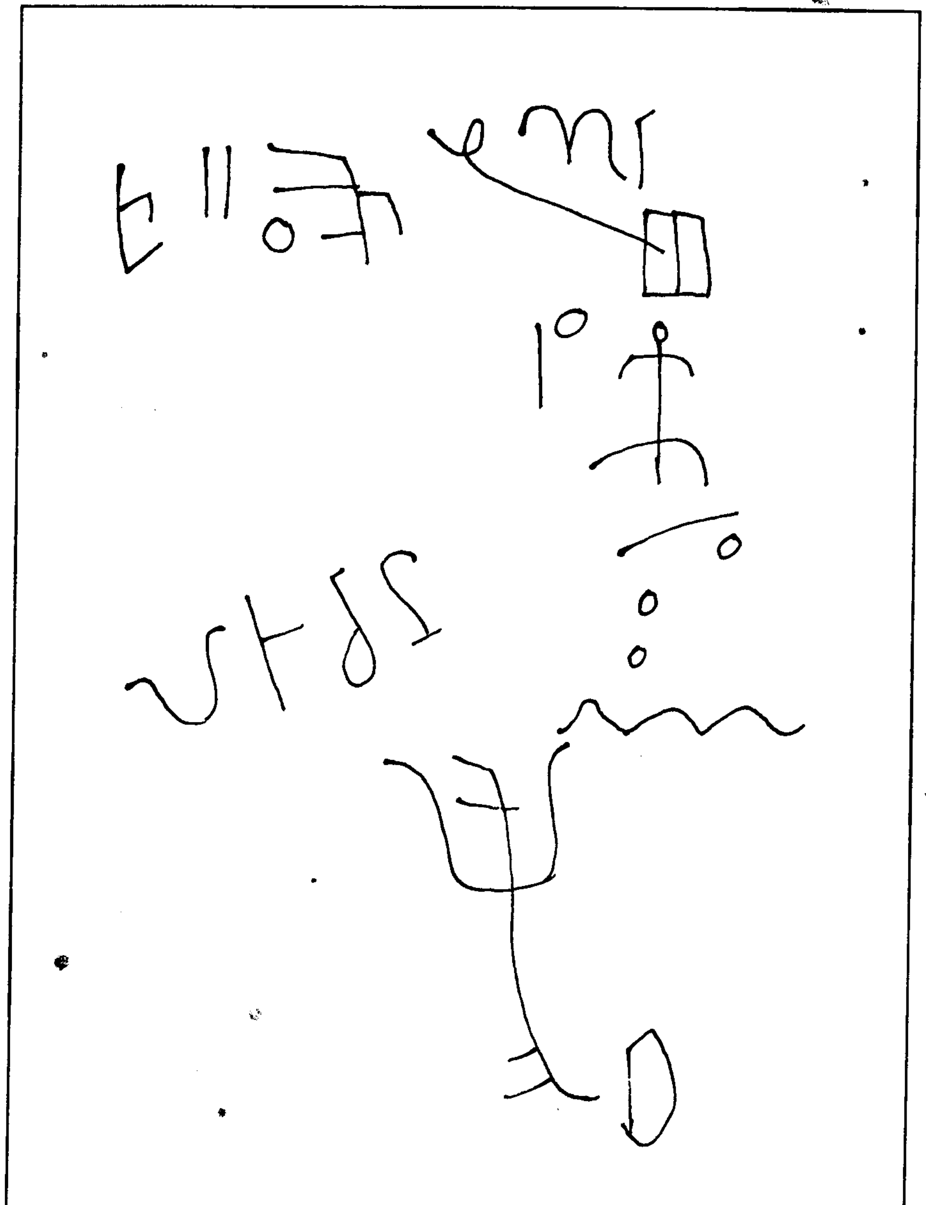


FIGURE : 60

ROCK ENGRAVINGS - PERUMUKKAL VILLAGE, NEAR DINDIVANAM, SOUTH ARCOT DISTRICT

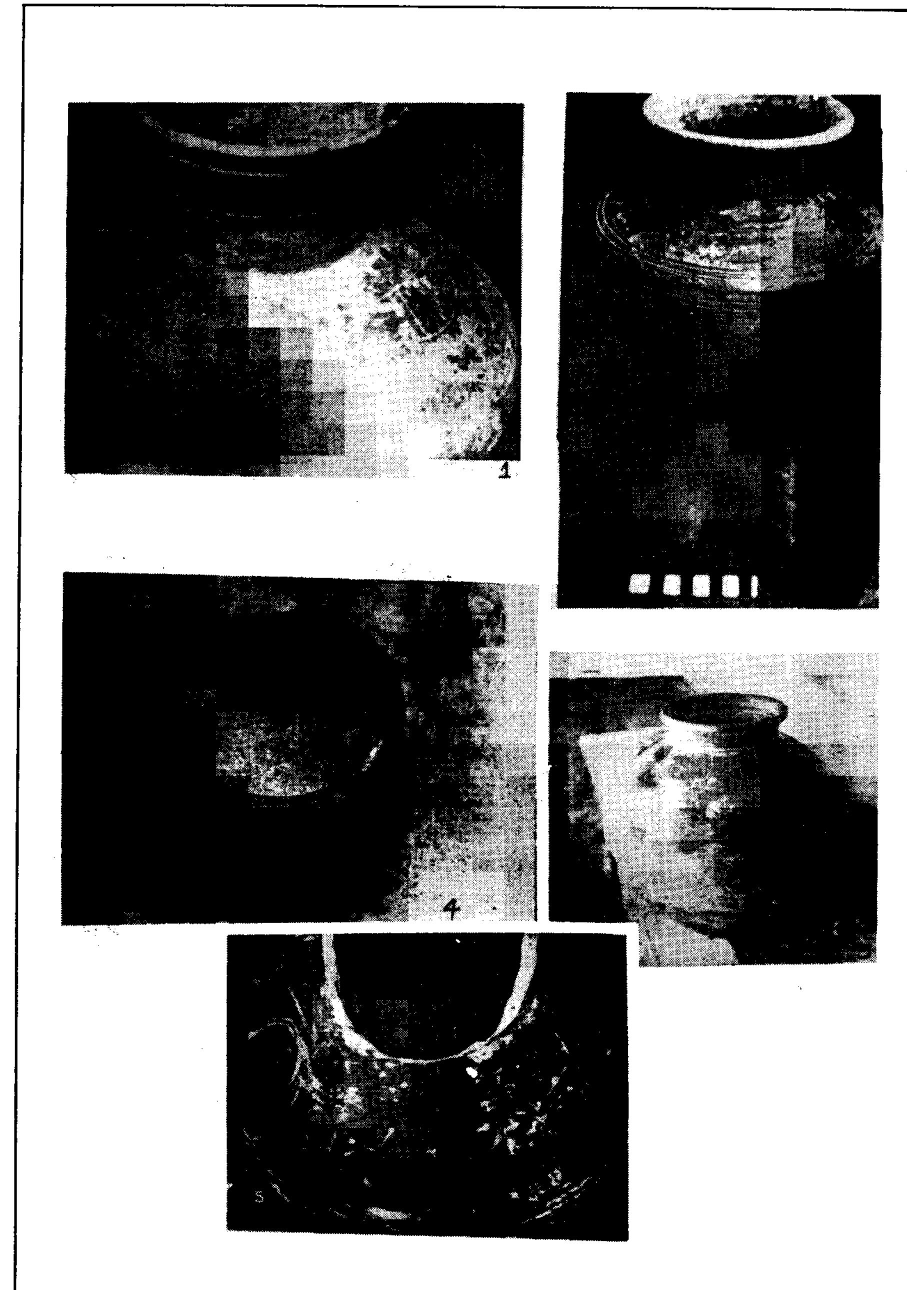


PLATE - I

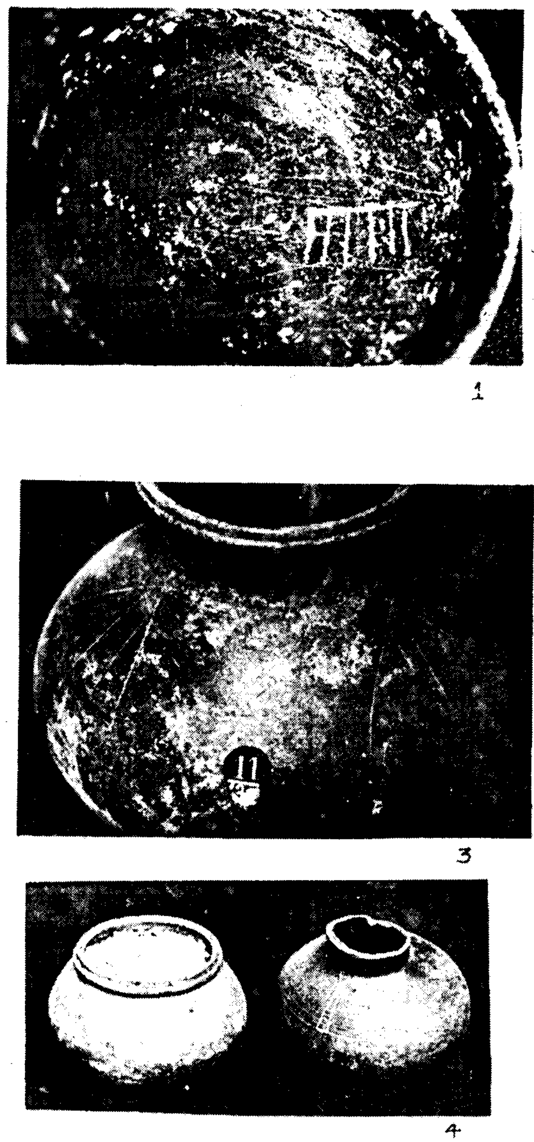


PLATE - II

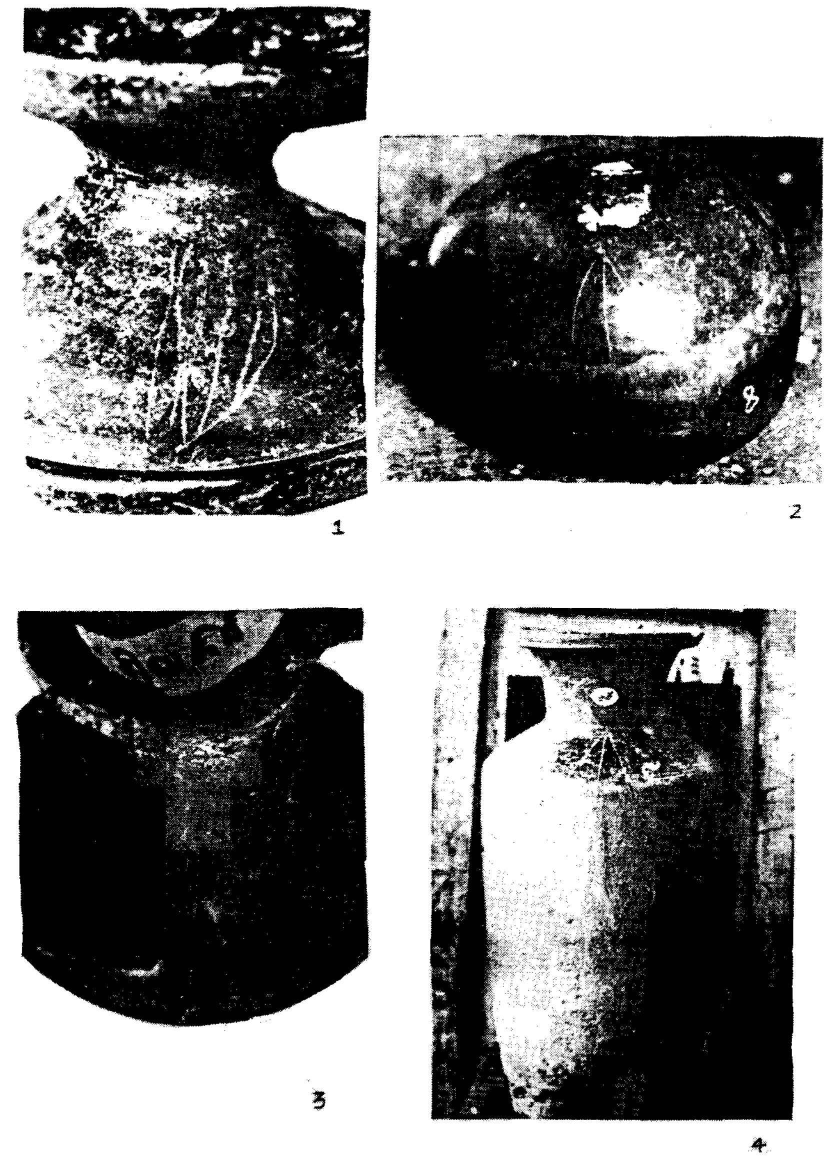
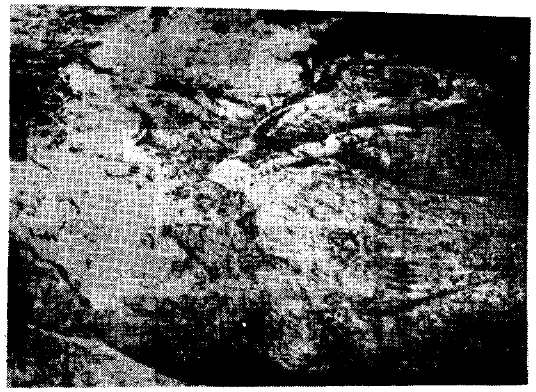


PLATE - III

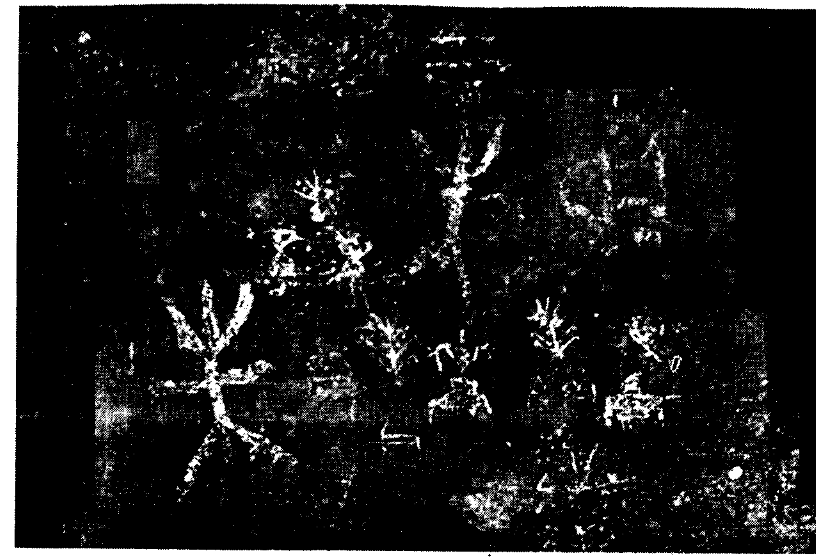


1



2

PLATE - IV



1



PLATE - V

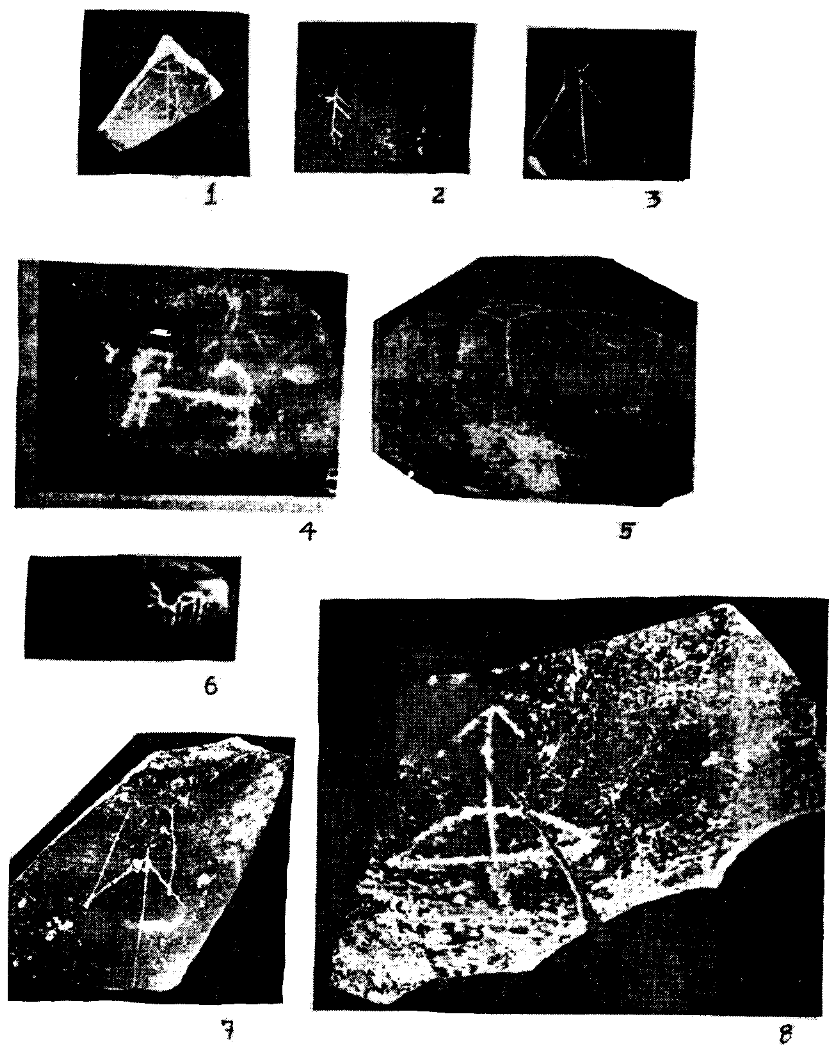


PLATE - VI

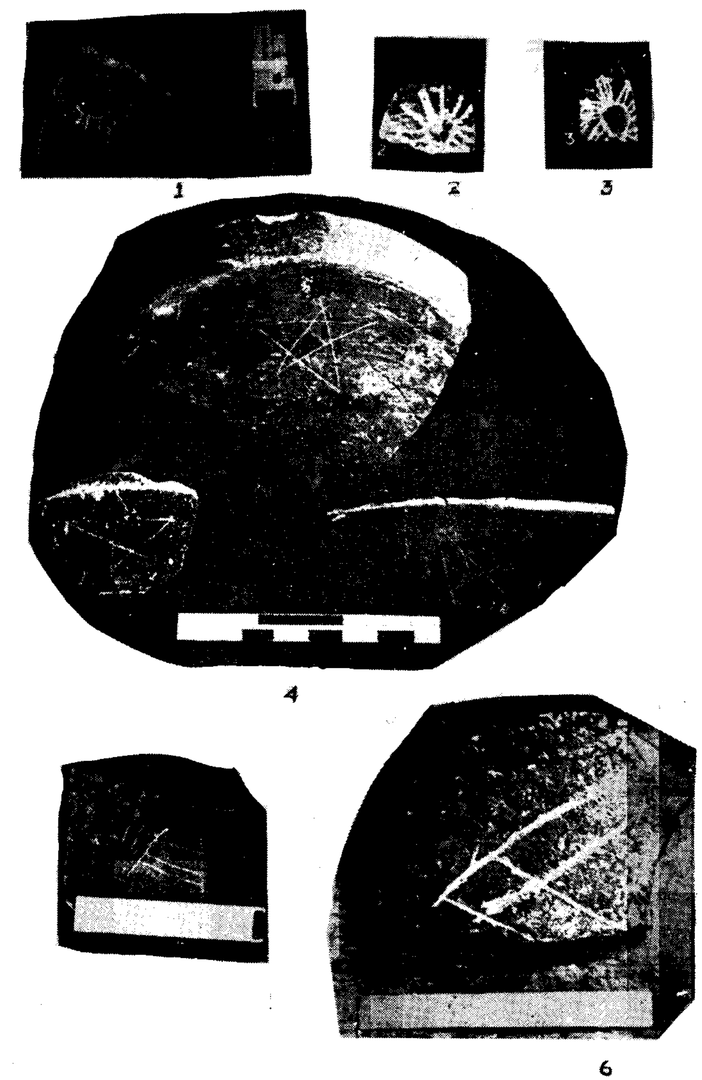


PLATE - VII

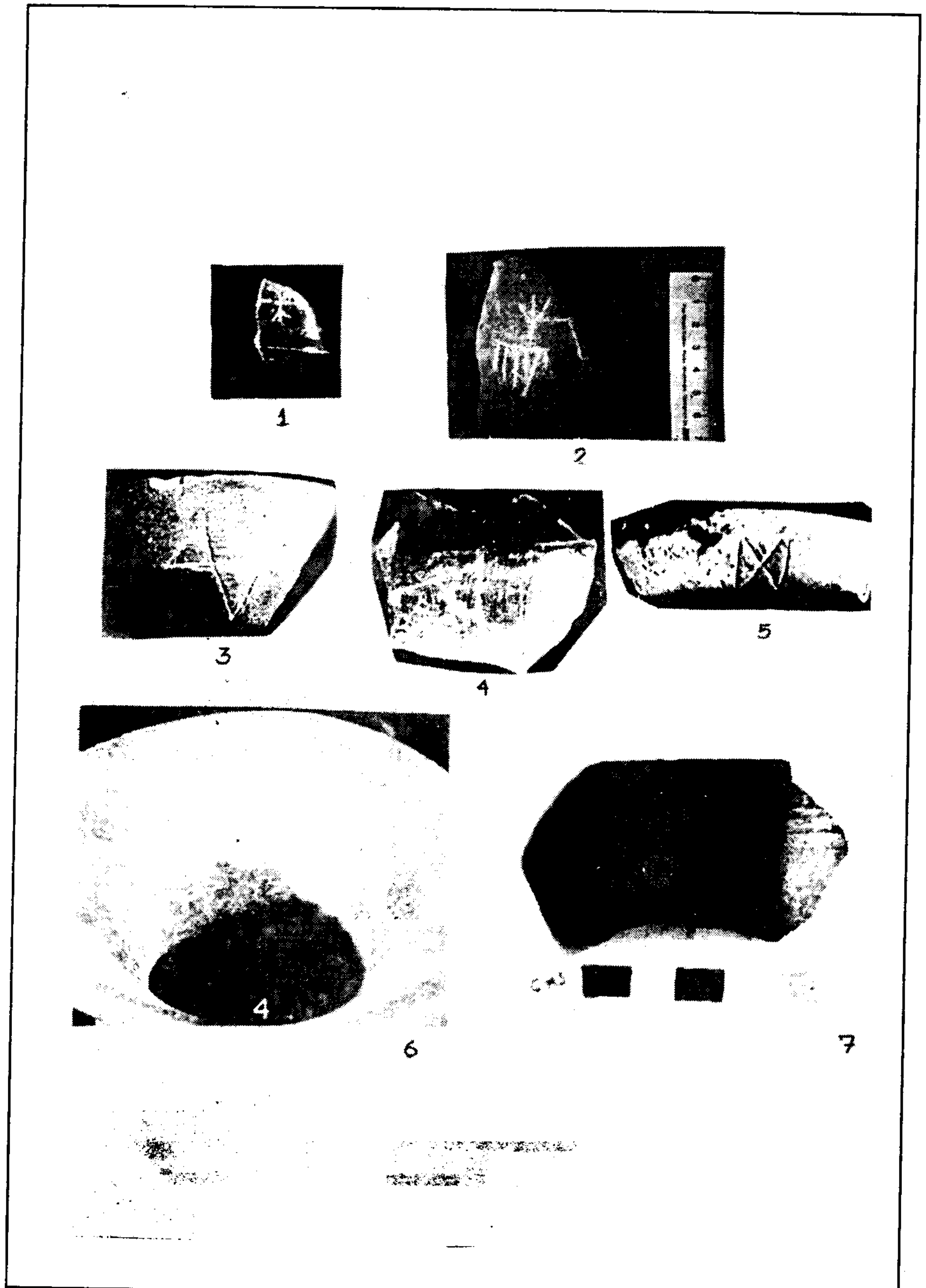


PLATE - VIII

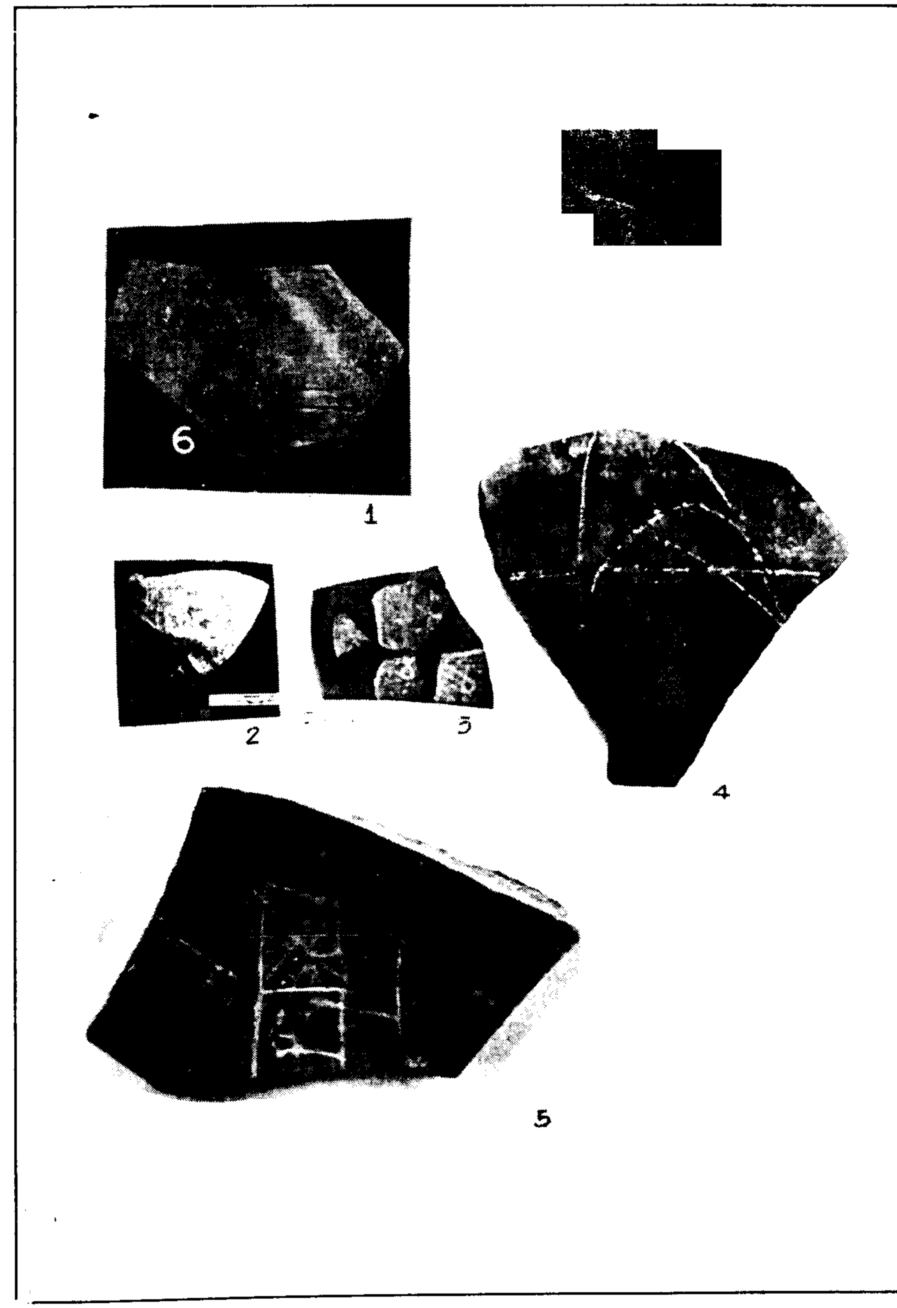
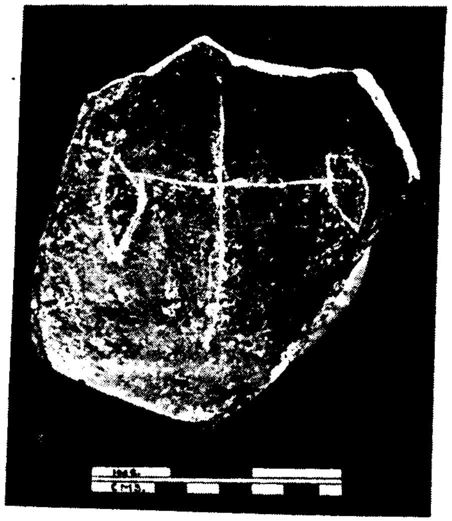


PLATE - IX



1



2

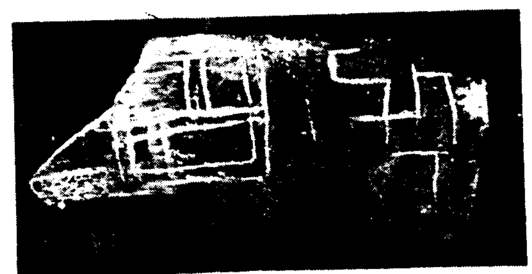


3

PLATE - X



1



2

PLATE - XI

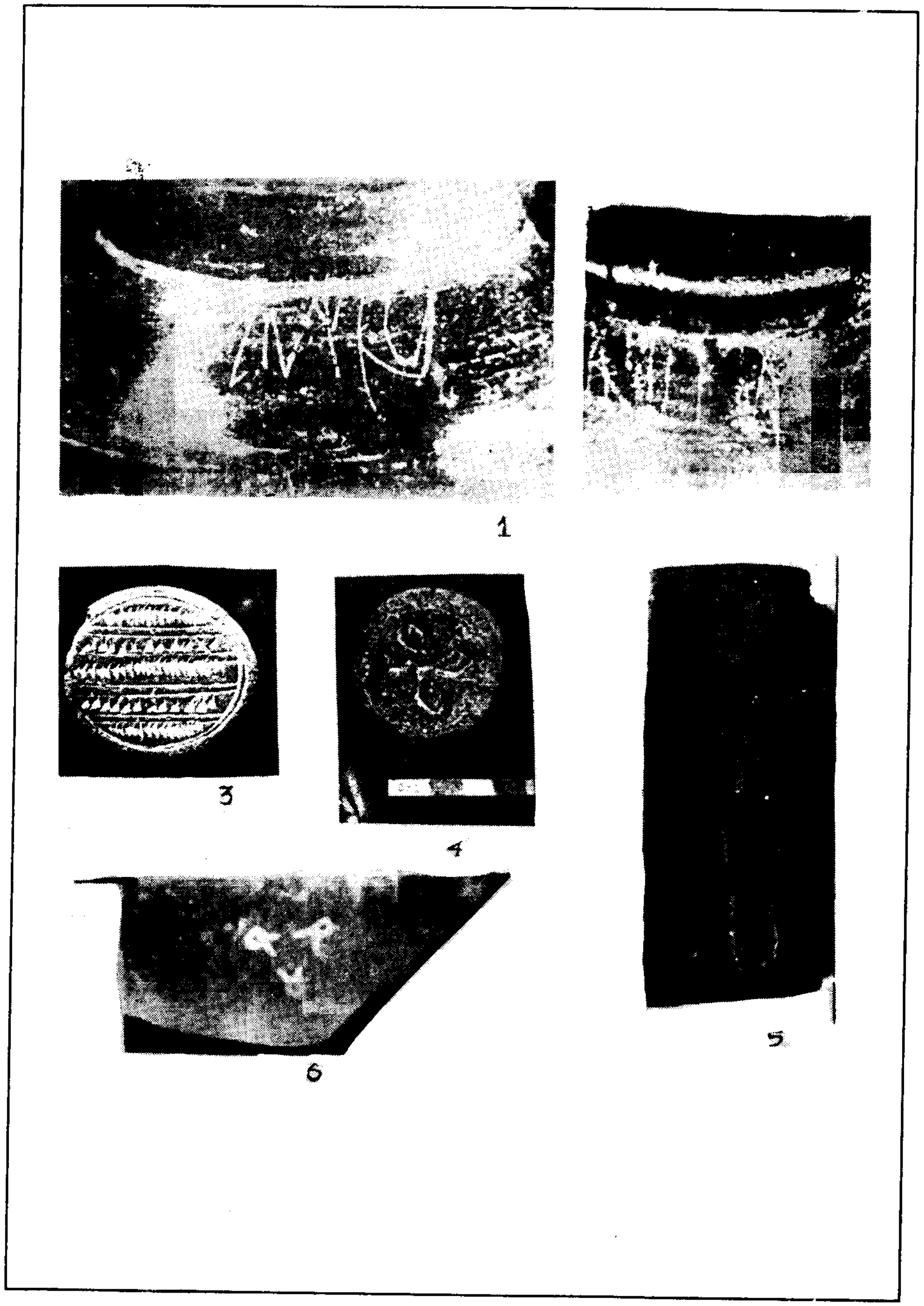


PLATE - XII

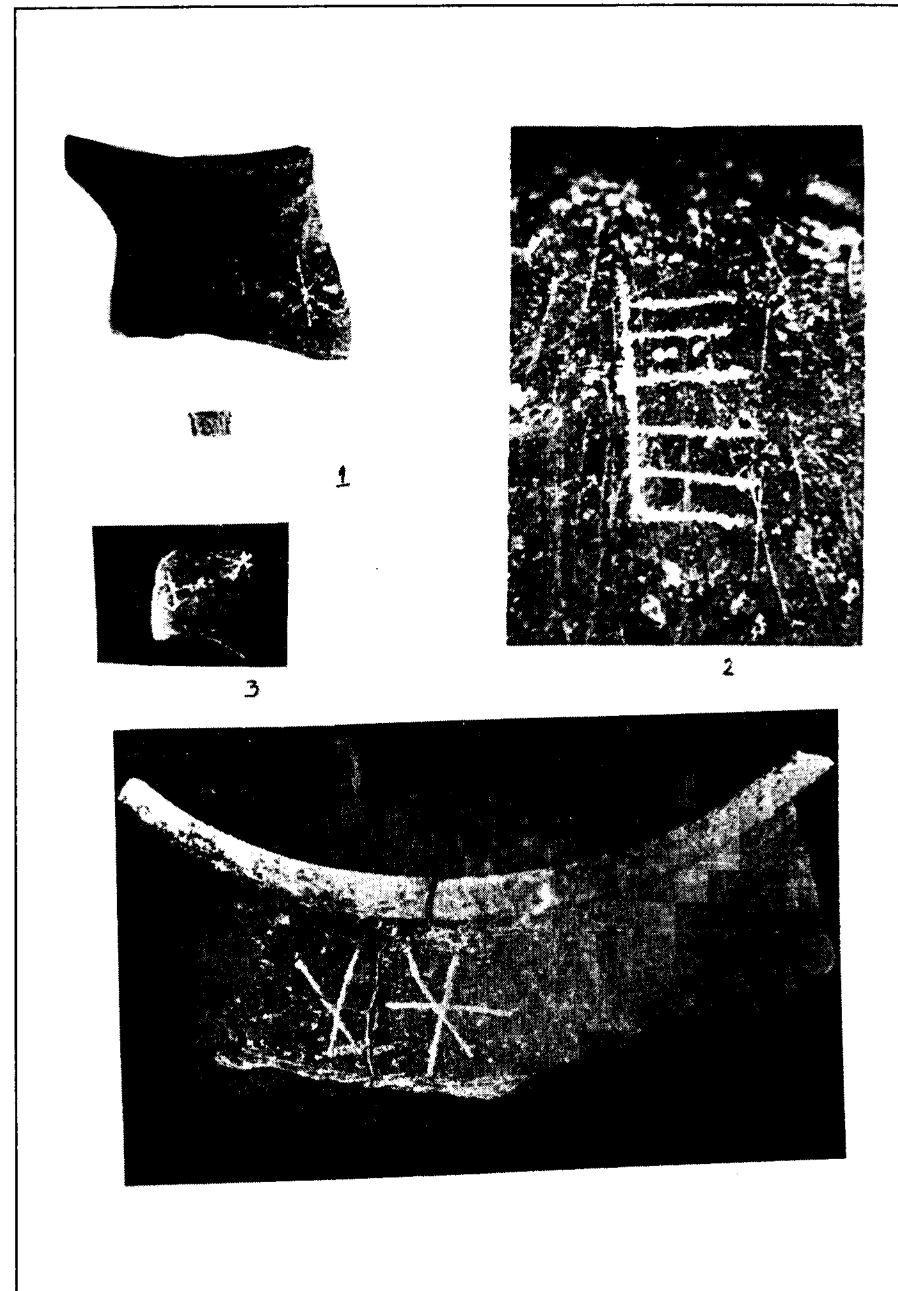


PLATE - XIII

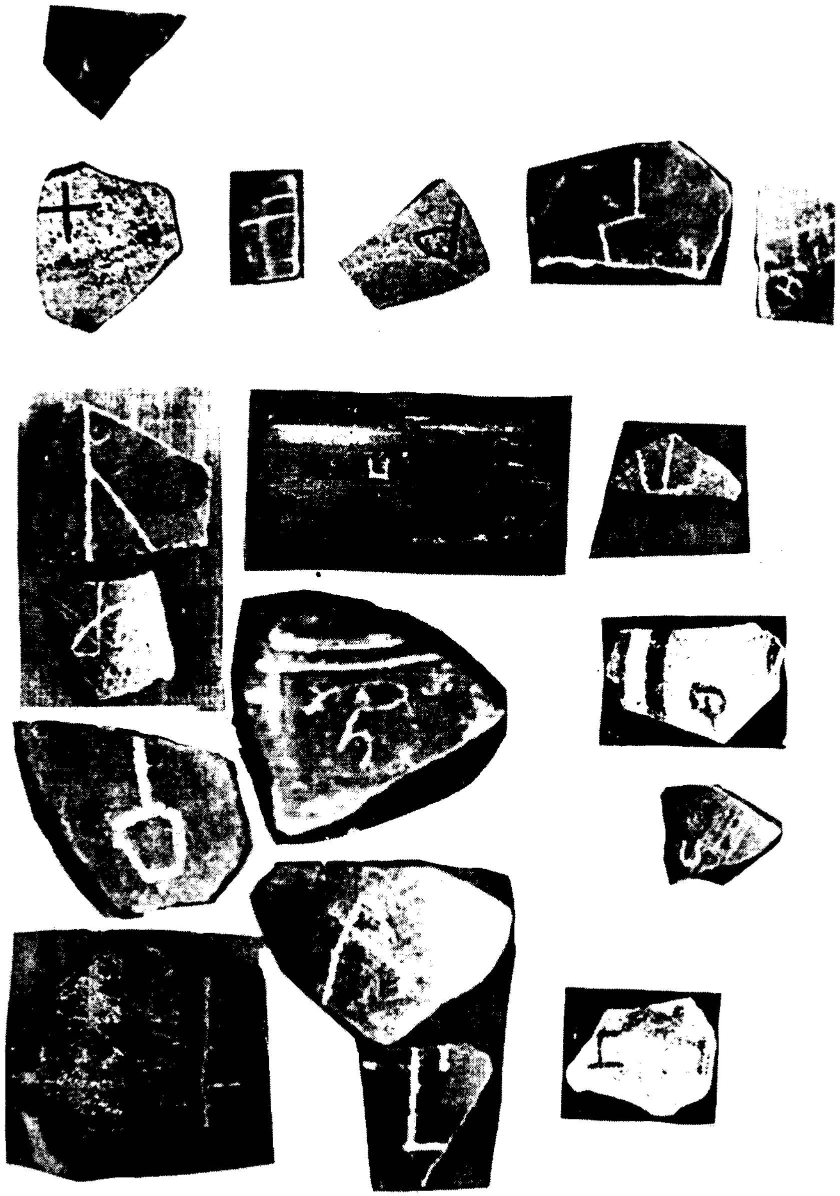
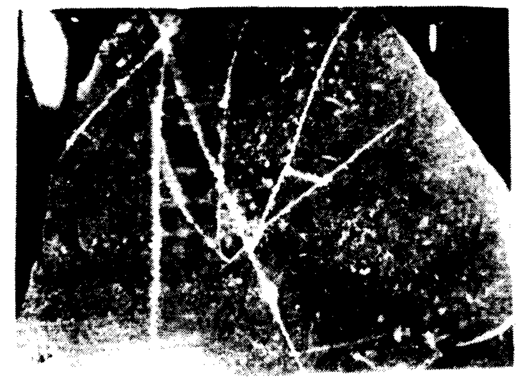


PLATE - XIV



1



2



3

PLATE - XV